

## II. REMARKS

Applicants have reviewed the Office action mailed September 5, 2002 and fully address herein the objections and rejections contained therein.

The Office action begins with Section I that recites a number of issues that are neither rejections nor objections to the claims of the instant application. Applicants address Section I of the Office action below, but note that the issues raised are not relevant to the patentability of the claims in this application. For this reason, Section I of the Office action is improper and should therefore be withdrawn in its entirety.

Section I of the Office action is followed by Sections II-V that assert the following objections and rejections of the pending claims.

Claims 2, 15, 28-30 and 38-42 stand rejected under 35 U.S.C. § 112, first paragraph, as allegedly containing subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventors, at the time the application was filed, had possession of the claimed invention.

Claim 2 stands rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over “Telesoftware-Value Added Teletext,” (hereinafter, “Hedger”).

Claim 28 stands rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over Hedger in view of “A Public Broadcaster’s View Of Teletext In The United States,” (hereinafter “Gunn”).

Claim 38 stands rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over Hedger in view of “ORACLE On Independent Television,” (hereinafter “Green”).

Applicants reply herein to each ground of rejection presented Office action. Applicants hereby request reconsideration of the instant application.

**A. Response to Section I of the Office Action.**

The Office action begins by identifying a list of 30 “Examples” of issues that have been raised in some of applicants’ copending applications. The Examiner alleges that in some cases applicants have “handled and addressed” these issues inconsistently in different applications. The Examiner states that the list of “Examples” will be maintained by the Patent Office “in an attempt to ensure consistency in the way that these issues are handled between applications in the future.”

7/31/02 Office action, p. 2.

Applicants respectfully submit that the “Examples” are simply irrelevant to the prosecution of the instant application for a number of reasons. The Patent Office itself has acknowledged that the list of 30 Examples is not relevant to certain applications because applicants have not asserted priority in those applications to the filing date of applicants’ 1981 application:

It is examiners position that after a series of interview, it has been mutually agreed upon that the instant application is entitled the earlier priority date of 9/11/87 based on the 07/096,096 application and not the 11/3/81 date based on the 06/317,510 application. Therefore, the written description and the enablement under 112 1<sup>st</sup> paragraph should be limited to the 1987 specification only. Additionally, the remarks set forth in Paragraph III, items 1-30 [the “Examples”] of the instant office action are carried over from other office actions in similar cases and are presented herein because in the past there have been disagreements between the priority date that the applicants are entitled to. The examiner will withdraw paragraph III from subsequent actions in the instant case application if applicants confirm on record in the next communication that the instant application is entitled to only the 1987 priority date and the citations for claim support will be only provided for the 1987 specification.<sup>1</sup>

The Examiner’s position that he will withdraw the irrelevant 30 Examples only if “applicants confirm on record in the next communication that the instant application is entitled to only the 1987 priority date” is improper. Whether or not *a particular claim* is afforded the benefit of an earlier

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<sup>1</sup> This paragraph was included in Office actions in the following applications: 08/487,397 mailed 9/06/02; 08/438,011 mailed 9/06/02; 08/447,496 mailed 9/06/02; and 08/479,215 mailed 9/05/02.

filings date under § 120 simply depends on whether the requirements of § 120 are met *for that claim*. A claim either is or is not entitled to an earlier filing date, and such a determination cannot be made without conducting the appropriate claim-by-claim analysis required by the controlling authorities. Of course, it is applicants' decision whether or not to invoke § 120 in order to overcome an intervening reference. In the instant application, applicants have distinguished the teachings of the intervening references applied by the Examiner on the merits and have *not* invoked § 120 to avoid the intervening references. Moreover, applicants have demonstrated specification support below only with respect to the 1987 specification. Accordingly, the 30 Examples should be withdrawn.

Applicants question the relevance of the 30 Examples, as well as applicants' need to respond to these Examples, because none of the examples forms the basis for any objection to or rejection of a pending claim. *See* 37 C.F.R. § 1.111 ("In order to be entitled to reconsideration or further examination, the applicant . . . must reply to every ground of objection and rejection in the prior Office action."). Further, none of the Examples even refers to any claims that are presently pending in the instant application. Accordingly, the 30 Examples simply have no bearing on the prosecution of the claims pending in the instant application, and are therefore improper.

Applicants further question the basis for including the 30 Examples in the instant application and applicants' need to respond to the Examples, because the vast majority of the Examples have appeared at least once before in other applications and because applicants have already responded to the vast majority of the Examples on the record in their copending applications. For example, all 30 Examples appear in identical form in the 07/17/02 Office action received in application Ser. No. 08/470,571 ("the '571 Application"). Additionally, at least 20 of the current Examples previously appeared in the 08/28/01 Office action in the '571 Application. Accordingly, applicants, in their 01/28/02 and 01/09/03 Responses filed in the '571 Application, have already fully responded on the record to all of the 30 Examples listed in the instant application.

In addition to the identical "Examples" being repeated from other recent Office actions, applicants note that many of the issues discussed in the 30 Examples have been raised by the

Examiner before in slightly different forms in applicants' various copending applications. In addressing such issues, applicants have at all times strived to respond in a consistent manner in all of applicants' copending applications. Accordingly, applicants believe that the Examiner is mistaken in his assertion that applicants have "handled and addressed" the issues raised in the 30 Examples "inconsistently."

The 30 Examples are not relevant to the instant application, and applicants respectfully request that the Examples be withdrawn and that the Examiner acknowledge the lack of relevance of the 30 Examples to the prosecution of the instant application. Notwithstanding applicants' position regarding the lack of relevance of the 30 Examples to the prosecution of the instant case, applicants provide the following responses<sup>2</sup> to the 30 Examples. Applicants reserve their right to further address any of the 30 Examples if, for example, they are ever raised in the context of an actual rejection or objection.

### **Examples 1-3**

Examples 1-3 address various issues concerning applicants' ability to claim priority to their 1981 application and the proper test for demonstrating priority under 35 U.S.C. § 120. Because applicants have not asserted priority to their 1981 application for any of the pending claims in the instant application, Examples 1-3 are wholly irrelevant to the instant application.

In Example 1, the Examiner discusses prosecution of applicants' copending application Ser. No. 08/470,571. More specifically, the Examiner focuses on the need to first demonstrate written description support in applicants' 1987 specification when claiming priority under § 120. Applicants have not asserted priority under § 120 to the date of their 1981 application for any of the pending claims in the instant application, and applicants have identified detailed written description support

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<sup>2</sup> More detailed responses to many of the Examples appear in, among other places, applicants' 01/28/02 Response, 05/06/02 Response to Interview Summary, and 01/09/03 Response filed in the '571 Application.

in their 1987 specification for each and every pending claim in the instant application in Appendix B. Further, applicants respectfully disagree with the Examiner's characterization of their position regarding priority in their copending applications. Finally, in addition to being totally irrelevant to the instant application, applicants submit that the assertions made by the Examiner in Example 1 are improper in the absence of any priority claim made by applicants under 35 U.S.C. § 120 to their 1981 application for any claim in the instant application.

In Example 2, the Examiner takes issue with applicants' discussion and position regarding the proper test for demonstrating priority under § 120. Again, the Examiner refers to applicants' responses filed in the '571 Application. Although applicants continue to disagree with the Examiner's description and application of the legal test for demonstrating priority under § 120 (for the detailed reasons set forth by applicants, e.g., in their 01/09/03 Response in the '571 Application), the issue of priority under § 120 is simply not an issue in the instant application.

In Example 3, the Examiner further discusses applicants' ability to demonstrate priority under § 120 and their ability to support claims pending in the '571 Application using applicants' 1987 specification. Applicants believe that the issues raised in Example 3 are irrelevant to the instant application and submit that the Examiner has mischaracterized applicants' position regarding their ability to demonstrate written description support in both the 1987 and 1981 specifications for the claims pending in the '571 Application and other applications in which applicants are asserting priority under § 120.

Applicants' positions with respect to the various issues related to applicants' ability to claim priority to the date of their 1981 specification and the proper legal test for demonstrating priority under § 120 has been discussed in detail in applicants' submissions in the '571 Application. Applicants will continue to provide the factual and legal bases that justify their claim of priority to their 1981 application in those copending applications where such claim is appropriate and necessary (i.e., if intervening art is applied and applicants elect to invoke § 120 to overcome such intervening art).

#### **Example 4**

In Example 4, the Examiner discusses a claim limitation (i.e., “locally generating” images) relevant to certain claims pending in applicants’ ‘571 Application. Applicants respectfully disagree with the Examiner’s assertion in Example 4 that Teletext decoders locally generate images for output or display in the same manner that is being claimed in certain ones of applicants’ copending applications, and applicants have already addressed the issue of whether the prior art applied by the Examiner teaches local generation of images in the ‘571 Application. If the Examiner bases a rejection of or objection to any claim pending in the instant application on the issues found in Example 4, or asserts that the issues found in Example 4 are in any way relevant to the instant application, applicants will address any such assertions at the appropriate time.

#### **Examples 5 and 27**

In Examples 5 and 27, the Examiner discusses the “Teletext prior art” and the inventions disclosed in applicants’ 1987 specification in the context of an Office action and a Response filed in the ‘571 Application. The Examiner asserts in Examples 5 and 27 that applicants’ 1987 “packetized SPAM” structure represents little more than applicants’ own version of a “conventional extended Teletext system.” In Example 27, the Examiner further asserts that certain structures recited in some of applicants’ claims pending in the ‘571 Application (namely, a receiver, a signal detector, a processor, and an output device) are also “found within a conventional CPU/MP/computer implemented Teletext” receiver. These examples are not discussed or applied in the context of any of the claims pending in the instant application and the Examiner does not reject any of the pending claims based on the arguments made in Examples 5 and 27. If and when the Examiner makes rejections of specific pending claims on the basis of issues raised in Examples 5 and 27, applicants will further respond to such a rejection. Notwithstanding the lack of relevance of Examples 5 and 27 to this application, applicants strenuously disagree with the Examiner’s disparaging assertions and characterization of the subject matter disclosed in applicants’ 1987 specification. Finally, applicants

note that they have previously addressed how applicants' claims differ from many "Teletext" prior art references in prior responses filed in copending applications.

### **Example 6**

In Example 6, the Examiner discusses applicants' ability to obtain priority to their 1981 filing date for claiming "computer software." The Examiner discusses this issue with respect to arguments advanced in applicants' '571 Application related to applicants' prior use of the term "programming" in claims pending in the '571 Application. Applicants have fully addressed the issues raised in Example 6 in the '571 Application. The issues raised in Example 6, however, are not relevant to the instant application because applicants have not asserted priority under § 120 to the date of their 1981 application for any of the pending claims in the instant application. In fact, in Example 6, the Examiner acknowledges that applicants' 1987 specification does disclose the downloading of computer software. Notwithstanding the lack of relevance of Example 6 to this application, applicants disagree with the Examiner's position regarding applicants' ability to obtain priority to their 1981 filing date for claims that include the term "programming."

### **Example 7**

In Example 7, the Examiner alleges that Teletext decoders found in the prior art are "signal processors" as the term "signal processor" is used within the context of applicants' claims pending in the '571 Application. Again, the issues raised in Example 7 are not discussed in the context of any claim currently pending in the instant application. Applicants do not understand the relevance of Example 7 to any of the claims currently pending in the instant application and no attempt is made to apply the discussion in Example 7 to the instant claims. Notwithstanding the lack of relevance of Example 7 to this application, applicants respectfully disagree with the Examiner's assertions and characterization of Teletext decoders found in the prior art and the signal processor disclosed by applicants. Applicants submit that the signal processors disclosed in applicants' specifications perform functions that are not disclosed in the cited Teletext prior art references. Finally, applicants

will address these issues if and when an actual rejection is made by the Examiner based on the issues raised in Example 7.

### **Example 8**

In Example 8, the Examiner asserts that it is applicants' position that applicants' claimed/disclosed technology is not "correlated/analogous" to Teletext technology. The Examiner, however, fails to provide any details regarding his position that "conventional Teletext systems" generally are correlated or similar to applicants' claimed technology. Indeed, such generalized "correlations" or "analogies" are wholly irrelevant to the issue of whether or not applicants' claims are patentable. Applicants' position is that none of the specific references, related to Teletext or otherwise, alone or in combination, teach the methods and apparatus claimed by applicants. The Examiner further argues that applicants have previously indicated it is their belief that the scope of many of their pending claims encompasses the "Weather Star" system/receiver technology. First, the question of whether or not a particular system would be covered by a pending claim is wholly irrelevant to the examination of the instant claims, unless such system is prior art. The Examiner has not established that the Weather Star system is prior art. Second, although the Examiner vaguely refers to applicants' "pending amended claims," he makes no reference to a specific application *or a specific claim*. Due to the Examiner's broad treatment of these issues, applicants cannot respond in any meaningful manner to the issues raised in Example 8.

### **Example 9**

In Example 9, the Examiner discusses an issue that arose in the prosecution of the '571 Application regarding whether "digital television signals/programming" was well known in the relevant art at the time that applicants filed their specifications. In their 1/28/02 Response filed in the '571 Application, applicants fully addressed the Examiner's rejections under § 112, second paragraph, of claims with limitations of "digital television." Further, applicants maintain their position stated in the '571 Application regarding the Schwartz et al. reference. Applicants note that there are no

rejections of or objections to any of applicants' pending claims in the instant application based on the issues raised in Example 9, and applicants reserve the right to further respond to the issues raised in Example 9 if any of these assertions are relied on to object to or reject any claim in the future.

### **Example 10**

In Example 10, the Examiner discusses two references of Zaboklicki: DE 2,914,981 and GB#2,016,874. Despite the Examiner's characterization of applicants' arguments regarding these references, applicants maintain that neither Zaboklicki reference anticipates or renders obvious any of applicants' pending claims in the instant application. Applicants have previously addressed issues raised in Example 10 in the '571 Application, and applicants will continue to address in detail any rejection under § 102 or § 103 in which a Zaboklicki reference is applied.

### **Examples 11, 12, 15 and 16**

In Examples 11, 12, 15 and 16, the Examiner discusses applicants' use of the term "programming" in the 1981 and 1987 specifications. More specifically, Examples 11, 12, 15 and 16 assert that applicants cannot claim a 1981 priority date for claims including the term "computer programming," because of an allegedly narrow definition of that term in the 1981 specification. The issues raised in Examples 11, 12, 15 and 16 are only relevant if applicants rely on § 120 to obtain the benefit of their 1981 filing date. As applicants have not claimed priority to their 1981 application for any claims currently pending in this application, the issue is not relevant to the instant application. If and when the Examiner asserts that the issues found in Examples 11, 12, 15 and 16 are relevant to the claims pending in the instant application, applicants will respond at the appropriate time. Finally, applicants have fully addressed the "programming" issues raised in these examples in several prior responses filed in the '571 Application.

### **Example 13**

In Example 13, the Examiner discusses whether or not radio and television arts represent non-analogous arts. The Examiner states that applicants have previously asserted that the radio and

television arts are non-analogous arts. The Examiner's assertions in Example 13 do not form the basis for any rejection of or objection to any specific claim pending in the instant application. To the extent necessary, applicants will further address the issues raised by the Examiner in Example 13 if and when such issues are ever raised in the context of a rejection of or objection to a specific pending claim based on specific applied references in the identified arts.

#### **Example 14**

In Example 14, the Examiner discusses issues related to a claim recitation (simultaneous and sequential) in the context of two of applicants' copending applications (i.e., the '571 Application and Application Ser. No. 08/469,078. The Examiner's assertions in Example 14 do not form the basis for any rejection of or objection to any specific claim pending in the instant application. To the extent necessary, applicants will further address the issues raised by the Examiner in Example 14 if and when such issues are ever raised in the context of a rejection of or objection to a specific pending claim. Additionally, applicants note that they have fully addressed issues related to the Examiner's concerns regarding "simultaneous and sequential" in their January 28, 2002 Response filed in the '571 Application.

#### **Examples 17-20 and 23-26**

Examples 17-20 and 23-26 discuss various issues related to applicants' ability to obtain a priority date based on their 1981 application and the proper legal test to be applied when analyzing an applicants' ability to obtain a priority date under § 120. None of the issues discussed in Examples 17-20 and 23-26 is relevant to the instant application because applicants have not asserted a 1981 priority date for the claims pending in the instant application. Further, applicants have addressed the issues related to priority in detail in their responses filed in the '571 Application and Application Ser. No. 08/487,526.

### **Example 21**

In Example 21, the Examiner describes and compares the technology disclosed by applicants in their 1981 and 1987 specifications and asserts that the technology disclosed in applicants' two specifications is "vastly different." While it is true that the 1987 application includes many enhancements and improvements, applicants maintain that the subject matter disclosed in their 1981 application is also disclosed in the 1987 application. Second, because applicants have not asserted a 1981 priority date for the claims pending in the instant application, applicants' 1981 specification and any comparison between applicants' 1981 and 1987 specifications are not relevant to the instant application. Finally, the issues raised in Example 21 have previously been addressed in the '571 Application. Applicants will continue to provide appropriate factual and legal arguments as to why they are entitled to a 1981 priority date in all cases where it is relevant.

### **Example 22**

In Example 22, the Examiner discusses a perceived difficulty in interpreting terminology in applicants' claims in light of the 1981 and 1987 specifications. More specifically, the Examiner asserts that certain terminology in applicants' claims takes on different interpretations when such terminology is read on different teachings from applicants' 1981 and 1987 disclosures. The alleged "problem" described in Example 22 is simply not applicable to the instant application because applicants have not asserted a priority date based on their 1981 application for any claim pending in the instant application. In the instant application, only the 1987 specification is used to support the pending claims. Accordingly, the issues raised by the Examiner in Example 22 are not relevant to the instant application. Further, applicants have fully addressed Example 22 in the '571 Application.

### **Example 28**

In Example 28, the Examiner discusses a specific claim pending in the '571 Application (claim 56). Specifically, the Examiner questions applicants' written description support for the recitation "interactive ultimate receiver station" previously appearing in claim 56 of the '571 Application. Applicants maintain that both the 1981 and 1987 specifications unquestionably disclose "interactive

receiver stations.” *See, e.g.*, 1981 Specification col. 20, ll. 23-27, and “Local Input” in Figure 6D; 1987 Specification, p. 288, ll. 1-20. The Examiner’s assertions in Example 28 do not form the basis for any rejection of or objection to any specific claim pending in the instant application. To the extent necessary, applicants will further address the issues raised by the Examiner in Example 28 if and when such issues are ever raised in the context of a rejection of or objection to a specific pending claim. Finally, applicants note that they have already fully addressed Example 28 in the ‘571 Application.

### **Example 29**

Example 29 discusses limitations directed to combining images (e.g., where a “portion” of an image is “replaced” by a portion of another image) which are allegedly present in claims in applicants’ ‘571 Application. Applicants maintain that applicants’ specifications broadly teach the combining of images. The Examiner’s assertions in Example 29 do not form the basis for any rejection of or objection to any specific claim pending in the instant application. To the extent necessary, applicants will further address the issues raised by the Examiner in Example 29 if and when such issues are ever raised in the context of a rejection of or objection to a specific pending claim. Further, applicants have already fully addressed the issues raised in Example 29 in the ‘571 Application.

### **Example 30**

In Example 30, the Examiner discusses the publication date of article/reference by Gunn et al. Applicants acknowledge that the Gunn reference is a transcript from a conference in London that took place from March 26-28, 1980. But this information alone does not qualify the reference as prior art (i.e., it was unclear when the paper was published). However, since the mailing of the 7/17/02 Office action in the ‘571 Application, applicants received a copy of the Gunn reference that bears a Massachusetts Institute of Technology Library received stamp dated December 4, 1980. The Examiner also alleges in Example 30 that applicants have previously neglected to provide the Office with information regarding the publication dates of many references. Applicants have diligently

supplied the Office with references as they have become known to applicants. In some instances, applicants were not provided with dates of certain references, so applicants were not able to provide the Office with dates for each and every reference identified on some of applicants' Information Disclosure Statements.

**B. Response to Rejection under Section 112, first paragraph.**

The Examiner prefacing his rejections under § 112, first paragraph, by listing a series of quotations from a decision issued in prior litigation pending before the International Trade Commission (ITC) involving one of applicants' issued patents. In Section III, the Examiner simply lists several quotations and then states that the Examiner "continues to adopt these same positions in regard to the pending amended claims currently at issue." Apparently, the Examiner includes these quotations to support his rejections under § 112, first paragraph. The Examiner, however, fails to provide any discussion or explanation regarding the proper procedural and factual context of these quotes. Placed in an accurate and proper context, the record from the ITC litigation actually supports applicants' position that the pending claims are justified by the instant specification.

Before addressing the specific passages quoted in the Office action, applicants must first provide a procedural overview of the ITC litigation. In the litigation before the ITC, the owner of applicants' issued patents and the assignee of the instant application, Personalized Media Communications L.L.C. (PMC), alleged that certain products imported into the United States infringed several claims of U.S. Patent No. 5,225,277. Following an evidentiary hearing, the ITC administrative law judge, Judge Luckern, issued a decision entitled "Initial and Recommended Determinations" (Initial Determinations) on October 20, 1997. *See In re Certain Digital Satellite Sys. (DSS) Receivers & Components Thereof*, No. 337-TA-392, 1997 WL 696255 (Int'l Trade Comm'n Oct. 20, 1997). In connection with the evidentiary hearing, three separate groups submitted briefs and arguments to Judge Luckern: 1) PMC; 2) the accused infringers (Respondents); and 3) the ITC Staff. Judge Luckern's Initial Determinations made various findings and concluded that: 1)

claims 3, 6, 7, 12, 15, 35, and 44 were invalid as indefinite; 2) claims 3, 6, 7, 12, 15, 35, and 44 were invalid as not enabled; 3) claim 7 was invalid as anticipated; and 4) no asserted claim was infringed. Significantly, the Respondents challenged only one claim, claim 44, for lack of written description support. Judge Luckern found that claim 44 was *not invalid* under § 112, first paragraph, for a failure to provide proper written description support. *Thus, no claim asserted in the ITC litigation was held invalid by Judge Luckern under 35 U.S.C. § 112, first paragraph, for failure to provide adequate written description support.*

On December 4, 1997, the ITC issued its Final Determination, which adopted some, but not all, of Judge Luckern's Initial Determinations. Specifically, the ITC's Final Determination adopted Judge Luckern's claim constructions and findings that the asserted claims were indefinite and not infringed. On the other hand, the ITC did not adopt Judge Luckern's other findings concerning, for example, whether the claims were enabled or whether claim 7 was anticipated. On appeal before the Federal Circuit were only those findings by Judge Luckern that the ITC expressly adopted in its Final Determination. The Federal Circuit's opinion: 1) reversed Judge Luckern's and the ITC's determination that the asserted patents claims were invalid for indefiniteness; 2) vacated Judge Luckern's and the ITC's determination that asserted claim 7 was not infringed; and 3) affirmed Judge Luckern's and the ITC's determination that claims 6 and 44 were not infringed. *See Personalized Media Communications, LLC v. Int'l Trade Comm'n*, 161 F.3d 696, 48 USPQ2d 1880 (Fed. Cir. 1998). As a result of the Federal Circuit opinion, the case was remanded to the ITC. After the case was remanded to the ITC, PMC withdrew its complaint and the ITC vacated Judge Luckern's Initial Determination with respect to the findings of invalidity for anticipation and lack of enablement. *See In re Certain Digital Satellite Sys. (DSS) Receivers & Components Thereof*, No. 337-TA-392, 2001 WL 535427 (Int'l Trade Comm'n May 13, 1999). Accordingly, the quotes relied upon by the Examiner in the Office action, all of which are from Judge Luckern's discussion of invalidity for lack of enablement, were vacated by the ITC.

As applicants have already noted, with respect to the only claim even challenged under the written description requirement of § 112, Judge Luckern concluded that the claim was *not invalid* on that basis.<sup>3</sup> Regarding the first quote, Judge Luckern's belief that the 1987 specification is "difficult to understand as it is dealing with many possible systems," even if true, is not a proper reason for the Examiner to conclude that none of applicants' claims are supported under § 112. Regarding the second quote, in which Judge Luckern discusses the complainant's identification of written description support for the asserted claims of U.S. Patent No. 5,225,277, what is important is that Judge Luckern did not find that any of the asserted claims were invalid for failure to satisfy the written description requirement of § 112. Finally, the last two quotes identified by the Examiner actually contain statements made by the ITC Staff in opening arguments. The comments advanced by the Staff in the ITC litigation describing "directions to a treasure map" and "ships passing in the night" are attorney arguments advanced during litigation, and such arguments are simply not indicative of applicants' actions before the PTO.

When the Examiner's citations to the ITC record are presented accurately and in their proper substantive and procedural context, the citations do not support the Examiner's position. Indeed, the ITC record is consistent with applicants' position on the written description issue. The statements relied upon by the Examiner are nothing more than dicta concerning a finding by Judge Luckern that was later vacated. Further, even if these findings had not been vacated, the observations by Judge Luckern do not contradict applicants' position that the pending claims are properly supported under § 112, first paragraph.

In Section III, the Examiner rejects all claims under 35 U.S.C. § 112, first paragraph, as containing subject matter that was not sufficiently described in the specification. With the exception of the rejection of claim 15, in making these rejections the Examiner does nothing more than identify

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<sup>3</sup> Additionally, in allowing the claims asserted in the ITC to issue, the PTO understood that those claims were adequately supported under § 112.

specific limitations pending in a given claim and state “it is not clear where the disclosure as originally filed described the recited step/process . . .” There is absolutely no analysis of, reference to, or discussion of any of the teachings found in applicants’ specification which disclose the various systems and methods for enabling a presentation of programming at subscriber stations. Because the Examiner has failed to provide any reason or analysis as to *why* applicants’ claims are not sufficiently supported under 35 U.S.C. § 112, first paragraph, the Examiner has failed to meet his burden to sustain such a rejection.

An Examiner has the initial burden of presenting a *prima facie* case of unpatentability by:

“[P]resenting evidence or reasons why persons skilled in the art would not recognize in the disclosure a description of the invention defined by the claims.” . . . [T]he burden placed on the examiner varies, depending on what the applicant claims. If the applicant claims embodiments of the invention that are completely outside the scope of the specification, then the examiner or Board need only establish this fact to make out a *prima facie* case. If, on the other hand, the specification contains a description of the claimed invention, albeit not *in ipsius verbis* (in the identical words), then the examiner or Board, in order to meet the burden of proof, must provide reasons why one of ordinary skill in the art would not consider the description sufficient. Once the examiner or Board carries the burden of making out a *prima facie* case of unpatentability, “the burden of coming forward with evidence shifts to the applicant.” . . . [to] show that the invention is adequately described to one skilled in the art.

*In re Alton*, 76 F.3d 1168, 1175 (Fed. Cir. 1996) (citations omitted).

As the Alton case makes clear the Examiner’s burden varies in making a valid rejection under § 112, first paragraph. In the Office action, the Examiner has not even met the most lenient burden described in Alton. The Examiner does not assert that applicants’ claims or specific limitations in applicants’ claims are completely outside the scope of the specification; the Examiner simply identifies specific claim limitations and requests “clarification.” Accordingly, under the standard set forth in *Alton*, the Examiner has not met his burden to “provide reasons why one of ordinary skill in the art would not consider the description sufficient.” *Alton*, 76 F.3d at 1175.

Notwithstanding the Examiner's failure to meet his burden for making a proper rejection of applicants' pending claims under § 112, first paragraph, applicants have provided a chart (attached as Appendix B) that identifies detailed written description support for each and every limitation of the pending claims. Applicants respectfully submit that the illustrative support identified in Appendix B, together with applicants' narrative discussion below, demonstrates that the claimed subject matter is described in the specification in such a way as to reasonably convey to one skilled in the art that applicants had possession of the claimed inventions at the time the 1987 application was filed. Applicants wish to note that the support provided below and in Appendix B is illustrative and the claims may be supportable by other/additional teachings of the 1987 specification. Applicants also wish to note that the claims of the instant application should not be construed to be limited based on the support provided.

### **1) Independent Claim 2**

Claim 2 presents a method for processing signals at a receiver station based on a received information transmission. The method comprises storing a subscriber datum at a receiver station computer. The stored subscriber datum may be at least one of the group consisting of: a property datum, a financial datum, an income datum and an interest datum. The method further comprises receiving and detecting a control signal in the received information transmission. The control signal is then passed to a computer. In response to the control signal, a financial analysis is generated by processing the stored subscriber data.

On pages 43-44, the Office action lists in paragraphs lettered a-o, several allegedly undisclosed items. The specification as originally filed provides support for each of these claimed features as illustrated below and in Appendix B. For example, claim 2 is supported at least by the discussion on Spec. p. 534, *et seq.*, relating to the communication of information to farmers in Europe (example #11). In that example, the step of storing subscriber datum at a receiver station

computer is disclosed as recording “complete information of said farmer’s crop planting plan at [microcomputer 205] A: disk in a file named PLANTING.DAT.” Spec. p. 551, ll. 11-14. The recorded data in the PLANTING.DAT file may comprise at least one of the group consisting of: a property datum (e.g., the “number and size of the individual parcels of property,” spec. p. 550, ll. 3-4), a financial datum (e.g., “the financial resources of said farmer,” spec. p. 550, ll. 7-8), an income datum (e.g., “projected revenues, expenses and profits,” spec. p. 550. ll. 30-32) and an interest datum (e.g., “interest rates,” spec. p. 550, l. 18).

The specification also discloses receiving a control signal in the information transmission. For example, “a particular second-cueing message (#11)” (i.e., a control signal) is embedded in (i.e., received in) the “Farm Plans of Europe” information transmission. Spec. p. 554, ll. 22-24.

The control signal (e.g., second-cueing message (#11)) is detected and passed to the receiver station computer. This is disclosed at least in the discussion of how the transmitted signal causes the signal processor 200 (i.e., detection) “to cause apparatus of its station to interconnect so as to commence generating and displaying ... combined medium programming” (i.e., passing to microcomputer 205). Spec. p. 554, ll. 27-35.

The specification as filed also discloses generating a financial analysis by processing the stored subscriber datum in response to the control signal. This is disclosed at least in the discussion bridging specification pages 554-555. There it is stated that the second-cueing message (#11) (i.e., control signal) causes the receiver station to play “prerecorded commercial spot programming.” Spec. p. 554, ll. 22-31. Playing the commercial spot causes the receiver station to “access the prerecorded ‘A:PLANTING.DAT’ disk file information” (e.g., subscriber datum) and “to generate cost/benefit financial analysis ....” Spec. p. 555, ll. 2-8.

At least a portion of the financial analysis is output to the subscriber. This is disclosed, for

example, as “display[ing] (or otherwise output[ting]) information of said analysis.” Spec. p. 555, ll. 11-13.

## 2) Independent Claim 15

Claim 15 provides a method for information delivery for use with an interactive mass medium program output apparatus. The method comprises outputting a mass medium program that explains at least one subscriber specific datum. The method also comprises receiving a subscriber that is communicated to a remote station on a network of stations. The method further comprises generating, in the network, a user specific financial analysis and delivering the user specific financial analysis.

The Office action sets forth paragraphs 2A-2C regarding the “interactive” recitations of claim 15. Office action, p. 44-45. Apparently, these paragraphs provide the Examiner’s reasoning of how the specification as filed allegedly fails to comply with 35 U.S.C. § 112, paragraph 1, (hereinafter “112 ¶ 1”) by “teaching away” from an interactive receiver station. Applicants respectfully submit that the arguments presented in paragraphs 2A-2C are incorrect, irrelevant and inapplicable to the present application. Paragraphs 2A-2C are each addressed below.

As discussed in MPEP § 2163, the procedure for evaluating compliance with 35 U.S.C. § 112, paragraph one, is to: (1) determine what the claim as a whole covers, (2) understand how the applicant provides support for the claimed invention including each element or step and (3) determine whether there is sufficient written description to inform a skilled artisan that the applicant was in possession of the claimed invention as a whole at the time the application was filed.

Paragraph 2A alleges that the

originally filed instant disclosure clearly taught away from the ‘interactive’ ultimate receiver station configuration which has been claimed during the present prosecution

[note claim 56 ... in 08/470,571].

Office action, p. 44. To support this alleged “teaching away,” paragraph 2A relies on statements made with respect to claim 56 in related application 08/470,571 and cites to several portions of the originally filed instant application (e.g., spec. p. 11, ll. 27-34, spec. p. 91, ll. 18-20 and spec. p. 427, ll. 13-34).

As an initial matter, applicants respectfully submit that applicants have never alleged, in this or any other application, that the disclosed apparatus and methods are not interactive. Furthermore, the Examiner’s reliance to remarks made in application serial no. 08/470,571, and during the prosecution thereof, are irrelevant to the analysis under 112 ¶ 1 for claim 15 of the instant application. It does not matter, for 112 ¶ 1 purposes, what applicants may have said about a claim in another application. As outlined above, what matters is (1) what does claim 15 of *this application* cover, (2) how is it supported in *this application* and (3) would one skilled in the art recognize from the support in *this application* that applicants possessed the claimed invention at the time of filing<sup>4</sup>.

Furthermore, applicants acknowledge that many portions of the originally filed specification recite “automatic” operation for various aspects of the system. This, however, does not preclude interactive operation as recited in claim 15. Below, and in Appendix B, applicants have provided specific citations to exemplary portions of the originally filed specification that provide support for claim 15. In the event that these citations do not satisfy the Examiner, he is respectfully requested to point out why the cited portions do not provide sufficient disclosure so that one skilled in the art would recognize that applicant possessed, at the time of filing, the invention recited in claim 15.

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<sup>4</sup> In addition, applicants note that as 08/470,571 claims priority to 1981 and the instant application to 1987, the effective time of filing, and, hence, the analysis under step (3) above, is different for the two applications.

In paragraph 2B the Examiner protests the use of the terminology “interactive video” and discusses applicant’s remarks with respect to the use of those terms in application serial no. 08/487,526. The Examiner’s arguments are inapplicable to claim 15 of the instant application. First, the terms “interactive video” do not appear in claim 15. Second, as discussed above, discussion of *another application* is irrelevant to the analysis under 112 ¶ 1 for claim 15 of *this application*.

In paragraph 2C the Examiner concludes that paragraphs 2A and 2B show that the application as originally filed does not support the use of the term “interactive.” As discussed above, the reasoning in paragraphs 2A and 2B is incorrect. Furthermore, as shown below and in Appendix B, applicants respectfully submit that the use of “interactive” is fully supported by the application as filed.

On pages 45-46 the Office action sets forth paragraphs a-p detailing claim features allegedly not described in the specification as filed. Support for each feature of claim 15 is provided in the discussion below and in Appendix B. For example, support for each feature in claim 15 is provided in the originally filed application at least in example #11 discussing the Farmers of Europe. Spec. pp. 533-557. The preamble to claim 15 recites a method for delivering information “for use with an interactive mass medium program output apparatus.” In the Summary of the Invention, on spec. p. 11, it is stated that

[t]he present invention consists of an integrated system of methods and apparatus for communicating programming. The term "programming" refers to everything that is transmitted electronically to entertain, instruct or inform, including television, radio, broadcast print, and computer programming as well as combined medium programming.

Thus, the specification provides support for a method for information delivery. In addition, the information delivery is disclosed as being interactive. For example, in example # 11 it is stated that

[f]armers and government planners all over Europe wish to receive and *interact* with the information of said program ....

Spec. p. 538, ll. 17-18 (emphasis added). Furthermore, example #11 specifies that “[e]ach farmer has a subscriber station that is identical to the station of Fig. 7.” Spec. p. 534, ll. 1-2. Fig. 7 shows a local input 225 that is disclosed at several locations in the specification to enable a subscriber to enter information into the system (i.e., interact). See, e.g., spec. p. 471, ll. 3-21 for an example of subscriber interaction via local input 225. Thus, the specification as originally filed provides support for an “interactive mass medium program output apparatus.”

The specification also discloses the claimed step of outputting a mass medium program that explains at least one subscriber specific datum. For example, the specification states that crop and budget information of the aforementioned optimal crop planting plan of each farmer [i.e., a subscriber specific datum] is explained in the outputted the generally applicable programming [i.e., mass medium program] and is displayed, emitted in sound, and printed at the station of each farmer.

Spec. p. 552, ll. 26-30 (bracket portions added). In addition, the specification supports an interactive mass medium program output apparatus having an input device to receive input from a subscriber. This is disclosed at least in local input 225, as shown in Fig. 7, and in the disclosure that “each farmer enters information at his local input 225.” Spec. p. 555, ll. 21-22.

The specification also provides support for the step of receiving a reply from the subscriber at the input device in response to the prompting step. As disclosed in example #10, prompting for input may be followed by the subscriber inputting data into local input 225. For example, “[a]t the station of Figs. 7 and 7F, the subscriber enters TV568\* at the keyboard of local input, 225” in response to a prompt in the program. Spec. p. 508, ll. 29-30. In addition, example #11 discloses that “each farmer enters information at his local input 225, that modifies information of his file,

'PLANTING.DAT,' to suit his own wishes and inclinations." Spec. p. 555, ll. 21-25. The specification also supports the apparatus having a transmitter for communicating information to a remote station. For example, in example #11 it is stated that

a particular module, TELEPHON.EXE, to be recorded at a particular disk drive of the microcomputer, 205, of each farmer's station (in the fashion of the file, "SHOPPING.EXE" in example #10) which, when executed, will permit the farmer to modify the information of his specific crop planting plan and associated budget and to *transmit* the specific information of his plan (as modified if modified) to a particular data collection computer at a *remote station*.

Spec. p. 554, ll. 13-21.

The specification also provides support for the claimed step of communicating the reply to a remote station. For example, it is disclosed that

each farmer enters information at his local input, 225, that modifies the information of his file, "PLANTING.DAT," to suit his own wishes and inclinations then executes particular information of said TELEPHON.EXE module that causes the instructions of said module to cause his signal processor, 200, to transmit the information of his "PLANTING.DAT" file, via telephone network in the fashion of example #10, to a computer at a particular remote data collection station.

Spec. p. 555, ll. 21-29.

Furthermore, the specification as filed discloses that the apparatus and the remote station comprise a network having a plurality of transmitter stations. This is described, for example, in the discussion bridging spec. pp. 555-556. There it is stated that

computers at remote data collection stations receive data automatically from each farmer of said nations ... the received data is aggregated, in a fashion well known in the art, at the computer of said European master network origination and control station ... [t]he aggregated data is also distributed automatically to computers at the national and local intermediate transmission stations ....

Spec. p. 555, l. 30 - p. 556, l. 11. In other words, computers at the ultimate receiver stations, the

European master network and national and local intermediate transmission stations communicate over a network.

The specification as filed also includes disclosure of the step of generating, in the network, a user specific financial analysis which is to be output at the interactive mass medium program output apparatus. For example, the specification states that

a particular second-cueing message (#11) that is embedded at the end of the prerecorded national and local segment of the "Farm Plans of Europe" programming at the recorder, 76, of each local intermediate station [i.e., a remote station in the network] and that is addressed to URS signal processors, 200, [i.e., a receiver in the network] is transmitted ... and ... causes ... access [to] the prerecorded "A:PLANTING.DAT" disk file information of a farmer's crop planting plan [i.e., user specific]; in a fashion well known in the art, to generate cost/benefit financial analysis  
....

Spec. p. 554, l. 22 - p. 555, l. 13. The interactive mass medium program output apparatus is also disclosed as having a receiver for receiving at least a portion of the user specific financial analysis from the remote station. See, e.g., spec. p. 552, ll. 20-23. Finally, the user specific financial analysis is disclosed as being delivered at spec. p. 555, ll. 11-12 (i.e., "display (or otherwise output) information of said analysis).

### **3) Independent Claim 28 And Claims Dependent Therefrom**

Claim 28 presents a method for processing signals at a receiver station based on a broadcast or cablecast transmission. The method comprises storing a subscriber datum at a receiver station computer. The stored subscriber datum may be at least one of: a property datum, a financial datum, an income datum and an interest datum. The method further comprises receiving and detecting a one or more control signals in the broadcast or cablecast transmission. The one or more control signals are then passed to a computer. The method further comprises selecting a mass medium program on

the basis of a stored parameter, outputting the mass medium programming to a subscriber receiver station and presenting some portion of a user specific financial analysis in the mass medium programming, wherein the user specific financial analysis is based upon the subscriber datum.

Office action pages 46-47 set forth in paragraphs a-q several claim features allegedly not described in the specification. As provided below and in Appendix B, the specification as originally filed provides support for each of these claimed features. For example, the step of storing subscriber datum at a receiver station computer is disclosed as recording “complete information of said farmer’s crop planting plan at [microcomputer 205] A: disk in a file named PLANTING.DAT. Spec. p. 551, ll. 11-14. The recorded data in the PLANTING.DAT file may comprise at least one of: a property datum (e.g., the “number and size of the individual parcels of property,” spec. p. 550, ll. 3-4), a financial datum (e.g., “the financial resources of said farmer,” spec. p. 550, ll. 7-8), an income datum (e.g., “projected revenues, expenses and profits,” spec. p. 550. ll. 30-32) and an interest datum (e.g., “interest rates,” spec. p. 550, l. 18).

The specification also discloses receiving one or more control signals in the broadcast or cablecast transmission. For example, “a particular second-cueing message (#11)” (i.e., a control signal) is embedded in (i.e., received in) the “Farm Plans of Europe” broadcast or cablecast transmission. Spec. p. 554, ll. 22-24.

The one or more control signals (e.g., second-cueing message (#11)) is detected and passed to the receiver station computer. This is disclosed at least in the discussion of how the transmitted signal causes the signal processor 200 (i.e., detection) “to cause apparatus of its station to interconnect so as to commence generating and displaying ... combined medium programming” (i.e., passing to microcomputer 205). Spec. p. 554, ll. 27-35.

The specification as filed also discloses the step of selecting a mass medium program on the

basis of a stored parameter. For example, spec. p. 538, ll. 17-29 (emphasis added) state that

[f]armers and government planners all over Europe wish to receive and interact with the information of said program and have *preprogrammed* [i.e., a stored parameter] the apparatus of their stations to receive and combined to the programming transmission of said program. Thus so transmitting said program unit identification information of said "Farm Plans of Europe" program causes apparatus at the ultimate receiver stations of farmers in all of said nations to interconnect display (or other output apparatus) to the transmission of said program and to combine to the computer system of said transmission in the fashions described in example #10 [i.e., selecting a mass medium program]....

The step of outputting the mass medium program to a subscriber receiver station is also disclosed. For example, spec. p. 552, l. 14-30, recite as follows.

Receiving the further additional SPAM messages of its local intermediate station causes apparatus at each subscriber station of a farmer to display or otherwise output (or to cease displaying or otherwise outputting) further combined medium programming of said national and local segment of the "Farm Plans of Europe" program.

Automatically, in the fashion of example #10, the display and output apparatus of each farmer's station commences displaying and outputting generally applicable television picture image, sound, and print information of a crop planting plan combined periodically with related locally generated specific crop planting plan information of its specific farmer. Automatically, crop and budget information of the aforementioned optimal crop planting plan of each farmer is explained in the outputted the generally applicable programming and is displayed, emitted in sound, and printed at the station of each farmer.

See also, spec. p. 552, l. 2-13.

The specification also supports the step of presenting some portion of a user specific financial analysis in the mass medium program, wherein the financial analysis is based on the subscriber datum. That the user specific is based in the subscriber datum is explained at least in the discussion bridging specification pages 554-555. There it is stated that playing a commercial spot causes the receiver station to "access the prerecorded 'A:PLANTING.DAT' disk file information" (e.g., subscriber datum) and "to generate cost/benefit financial analysis ...." Spec. p. 555, ll. 2-8. At least

a portion of the financial analysis is presented to the subscriber. This is disclosed, for example, as “display[ing] (or otherwise output[ting]) information of said analysis.” Spec. p. 555, ll. 11-13.

Claim 29 depends directly from claim 28. The support for this claim is thus based on the support discussed with respect to claim 28, and additional exemplary support for this dependent claim is identified in Appendix B.

#### **4) Independent Claim 30**

Claim 30 provides a method of communicating subscriber station information from a subscriber station to one or more remote stations. The method comprises storing subscriber data at the subscriber station and processing an instruct signal and a control signal. The control signal is effective to deliver a user specific financial analysis at the subscriber station. The processing at the subscriber station is directed by instructions from the instruct signal and the user specific financial analysis is based on the stored subscriber data. The method also comprises generating one or more subscriber specific data from the step of processing the instruct signal and transferring the one or more subscriber specific data from the subscriber station to the one or more remote stations. In addition, the method comprises receiving at least one of viewer modified or planner modified information for use in a subsequent iteration of processing an instruct signal.

On page 48 the Office action sets forth paragraphs a-m of claim features allegedly not disclosed in the specification. As discussed below and in Appendix B, the specification as originally filed provides support for each of these claimed features. For example, the step of storing subscriber data at the subscriber station is disclosed as storing “[p]articular farm information of the specific farm of each farmer ... in a file named MY\_FARM.DAT on a disk at the A: disk drive of the microcomputer, 205, of each station.” Spec. p. 534, l. 5-8.

The originally filed specification also supports the step of processing an instruct signal and a

control signal, wherein said control signal is effective to deliver a user specific financial analysis at said subscriber station, said processing at said subscriber station is directed by instructions from said instruct signal, and said user specific financial analysis being based on said subscriber data. For example, in specification example #11, processing an instruct signal, wherein the processing at the subscriber station is directed by instructions received in the processed instruct signal, is disclosed as, first, receiving a program instruction set (i.e., an instruct signal) from an intermediate transmitter station. Spec. 547, l. 26-31. Then, receipt the particular first SPAM message in the instruction set "causes apparatus of the subscriber station of each farmer to execute (i.e. process) the contained program instruction set of said message at the microcomputer, 205, ...." Spec. p. 548, l. 1-4. Processing of a control signal is disclosed in the discussion of second-cueing message (#11). For example, spec. p. 554, l. 22-32, state that

a particular second-cueing message (#11) that is embedded at the end of the prerecorded national and local segment of the "Farm Plans of Europe" programming at the recorder, 76, of each local intermediate station and that is addressed to URS signal processors, 200, is transmitted and causes the signal processor, 200, of each farmer's station to separate the apparatus of its station from the master channel transmission and second television of its local intermediate station....

The specification as originally filed also discloses that the control signal (i.e., second-cueing message (#11)) is effective to deliver, at said subscriber station, a user specific financial analysis that is based on the subscriber data. For example, second-cueing message (#11) is disclosed as causing signal processor 200 to commence playing prerecorded commercial spots. Spec. p. 555, l. 22-32. Playing the commercial spots causes, among other things, the generation of "cost/benefit financial analysis of the incremental benefit of acquiring and using the displayed product or service (by comparison with the farmer's existing product or service of like kind) ...." Spec. p. 555, l. 2-13.

The step of generating one or more subscriber specific data from the step of processing the

instruct signal is also disclosed in the specification as filed. For example, in the disclosure beginning on spec. p. 548, it is stated that a specific contained program instruction set is executed and "causes each microcomputer, 205, to generate a specific so-called "optimal" solution for its particular farmer's problem of deciding what mix of crops is most profitable to grow on his property, given his resources." Spec. p. 548, l. 18-22. In addition, the specification states that

[a]utomatically, under control of its received program instruction set, the microcomputer, 205, of its farmer's station records complete information of said farmer's crop planting plan at it's A: disk in a file named PLANTING.DAT.

Spec. p. 551, l. 11-14.

Likewise, the originally filed specification discloses transferring the one or more subscriber specific data from the subscriber station to one or more remote stations. For example, on spec. p. 555, l. 24-29, it is stated that execution of

said TELEPHON.EXE module that causes the instructions of said module to cause his signal processor, 200, to transmit the information of his "PLANTING.DAT" file, via telephone network in the fashion of example #10, to a computer at a particular remote data collection station.

Finally, the specification also supports the step of receiving at least one of viewer modified or planner modified information for use in a subsequent iteration of processing an instruct signal. That the receiver station can receive viewer modified information is disclosed at least as follows.

Under control of the instructions of the TELEPHON.EXE module of his station controlling the operation of his signal processor, 200, each farmer enters information at his local input, 225, that modifies the information of his file, "PLANTING.DAT," to suit his own wishes and inclinations

Spec. p. 555, l. 19-23. That planners can provide planner modified information is disclosed at least as follows.

Automatically, the received data is aggregated, in a fashion well known in the art, at the computer of said European master network origination and control station which allows planners at said station to modify and refine the variables of the national intermediate generation set of said station, especially the projected market prices at which farmers are projected to be able to sell each alternate crop.

That this planner modified information is received at the receiver station and that it or the viewer modified information may be used in a subsequent iteration of processing an instruct signal is disclosed as follows.

the cycle of generating and communicating information of farmers is repeated using the refined variables. Once again farmers receive optimal planting plans, given the new refined variables, and respond with their own plans, causing data to be aggregated at the computer of said European master network origination and control station.

In an iterative fashion well known in the art, this cycle is repeated several times until a satisfactory European master agricultural plan is achieved.

Spec. p. 556, l. 12-21.

##### **5) Independent Claim 38 And Claims Dependent Therefrom**

Claim 38 provides a method of communicating program material to a receiver station which includes a broadcast or cablecast program receiver, an output device, a control signal detector, a processor operatively connected to said output device, wherein the receiver station is adapted to detect and respond to one or more instruct signals. The method comprises the steps of outputting a program to be transmitted at a transmitter station and delivering the program to a transmitter and storing the one or more instruct signals at the transmitter station. The one or more instruct signals at said receiver station operate to deliver a user specific financial analysis based on pre-stored subscriber data. The method further comprises transmitting from the transmitter station an information transmission comprising the program and the one or more instruct signals.

Office action, p. 49 sets forth in paragraphs a-o several claim features allegedly not described in the specification. As discussed below and in Appendix B, the originally filed specification provides support for each feature recited in claim 38. Support for the apparatus recited in the preamble of claim 38 is found at least in Figure 7. Additional detail is provided in Appendix B.

The step of outputting a program to be transmitted at a transmitter station and delivering the program to a transmitter is disclosed in the originally filed specification. In example #11, support for the transmitter recited in this step is found at least in Figure 6 and in the accompanying text at spec. p. 535, l. 18-22 (e.g., “[e]ach local government has a local intermediate transmission station that is identical to the intermediate station of Fig. 6 ...”). Support for outputting a program to be transmitted and delivering it to a transmitter is as follows. A local-second-cueing message (#11) causes the computer, 73, of each local intermediate station to ... cause the video recorder/player, 78, of its station to commence playing and to cause apparatus of its station to transmit the output of said recorder/player, 78, to the field distribution system of said system of said station ....

Spec. p. 553, l. 1-10.

The step of storing the one or more instruct signals at the transmitter station is disclosed at least in Figures 6A and 6B and in the accompanying discussion at spec. p. 552-544. For example, the specification states that “the recorder, 76, or each local intermediate transmitter station transmits further additional SPAM messages that are embedded in its prerecorded programming ....” Spec. p. 552, l. 8-10. Furthermore, “a particular second-cueing message (#11) ... is embedded ... [in the] ... programming at the recorder, 76, of each local intermediate station....” Spec. p. 554, l. 22-26. The one or more instruct signals are also disclosed as operating to deliver a user specific financial analysis based on pre-stored subscriber data. For example, the specification states

Then a particular second-cueing message (#11) [i.e., instruct signal] that is

embedded at the end of the prerecorded national and local segment of the "Farm Plans of Europe" programming at the recorder, 76, of each local intermediate station and that is addressed to URS signal processors, 200, is transmitted and causes the signal processor, 200, of each farmer's station to separate the apparatus of its station from the master channel transmission and second television of its local intermediate station; to cause its recorder/players, 217 and 217A, to commence playing their prerecorded commercial spot programming in the fashion of example #8, and to cause apparatus of its station to interconnect so as to commence generating and displaying (or otherwise outputting) combined medium programming of the programming transmitted by its selected recorder/player, 217 or 217A.

Playing each commercial spot causes the combined medium information of said spot to display information of a particular commercial product such as a truck or a particular service such as a software package; to access the prerecorded "A:PLANTING.DAT" disk file information [i.e., pre-stored subscriber data] of a farmer's crop planting plan; in a fashion well known in the art, to generate cost/benefit financial analysis of the incremental benefit of acquiring and using the displayed product or service (by comparison with the farmer's existing product or service of like kind); and to display (or otherwise output) information of said analysis (if said analysis results in a positive net present benefit) [i.e., user specific financial analysis].

Spec. p. 554, l. 22 - p. 555, l. 12.

The step of transmitting from the transmitter station an information transmission comprising the program and the one or more instruct signals is also disclosed in the specification as filed. For example, transmitting is disclosed in example #11 as follows.

Then after an interval ... each computer, 73, causes said recorder, 78, to commence playing. In so doing, each computer, 73, causes twenty-six program units of commercial spot programming to be transmitted, in series, to its subscriber stations. Each program unit is preceded by embedded program unit identification information of its own that is addressed to URS signal processors, 200.

Transmitting an information transmission comprising a program and one or more instruct signals is disclosed in example #11 as follows.

Then a particular second-cueing message (#11) [i.e., instruct signal] that is embedded at the end of the prerecorded national and local segment of the "Farm Plans of Europe" programming [i.e., program] at the recorder, 76, of each local intermediate station and that is addressed to URS signal processors, 200, is transmitted ....

Spec. p. 554, l. 22-26.

Claims 39-42 depend directly from claim 38. The support for these claims is thus based on the support discussed with respect to claim 38, and additional exemplary support for these dependent claims is identified in Appendix B.

### **C. Response to Prior Art Rejections**

#### **1) Claim 2 Is Patentable Over Hedger**

Claim 2 is rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over Hedger. Applicants respectfully traverse and submit that the rejection is improper for at least failing to suggest or disclose each feature recited in claim 2.

Claim 2 recites, among other things, the steps of “receiving at least one control signal in said received information transmission,” and generating a financial analysis by processing said stored subscriber datum *in response to said control signal*. As discussed above, applicants’ specification discloses a control signal (e.g., second-cueing message (#11)) that is embedded in a portion of the programming. Spec. p. 554, l. 22-24. The control signal is detected (e.g., by signal processor 200) and passed to a computer (e.g., microcomputer 205). Spec. p. 554, ll. 27-35. Then, *in response to the control signal* that was received *in the information transmission*, a financial analysis is generated (e.g., by microcomputer 205) using the stored subscriber datum. Spec. p. 555, l. 2-13. Hedger does not disclose at least these steps.

Hedger appears to disclose an “advanced” teletext system in which “telesoftware” may be accessed and executed. The only reference Hedger makes to anything that can be fairly construed as a financial analysis is the portion cited by the examiner on Hedger, p. 564. That portion states, in its

entirety, as follows.

[s]earches and manipulations of more numeric information can be made, too, such as: 'Tell me all the share prices in a particular group which have gone up by more than 10 pence since yesterday's closing figures.' Alternatively, by making the details of his shares portfolio known to the telesoftware program (possible by loading it from a cassette recorder) the viewer could then use the program to access the stock market pages of teletext and compute the rise (or fall!) in value of the portfolio.

Hedger does not suggest or disclose, in above cited portion, or anywhere else, that this stock portfolio value calculation is generated in response to a control signal that was transmitted in the information transmission. In fact, Hedger does not say how the financial analysis is generated. At best, it appears that Hedger discloses that some sort of initiation signal from the viewer may cause the program to execute (e.g., "the viewer could then use the program ...").

The examiner appears to be making the assertion that Hedger inherently discloses generating a financial analysis in response to a control signal that was transmitted in the information transmission, because a program is "inherently comprised of control/instruct signals." Office Action, p. 51. However, the examiner has not provided sufficient rationale or evidence showing inherency. See, MPEP § 2112. "In relying upon the theory of inherency, the examiner must provide a basis in fact and/or technical reasoning to reasonably support the determination that the allegedly inherent characteristic necessarily flows from the teachings of the applied prior art." *Ex parte Levy*, 17 USPQ2d 1461, 1464 (Bd. Pat. App. & Inter. 1990) (emphasis in original). "The fact that a certain result or characteristic may occur or be present in the prior art is not sufficient to establish the inherency of that result or characteristic." *In re Rijckaert*, 9 F.3d 1531, 1534, 28 USPQ2d 1955, 1957 (Fed. Cir. 1993). As discussed above, Hedger does not disclose how the financial analysis is generated, but it appears to be in response to the viewer, not a control signal received in an information transmission. Therefore, even if a program is, as the examiner asserts, inherently

comprised of control signals, Hedger does not recite that those signals are received in an information transmission and that the financial analysis is generated in response to those same received signals. Furthermore, Hedger appears to suggest an alternative mechanism (i.e., user invocation) to generate the financial analysis in direct contrast to the examiner's assertion of inherency. For at least these reasons applicants respectfully submit that the rejection of claim 2 is improper and request that it be withdrawn.

**2) Claim 28 Is Patentable Over Hedger In View Of Gunn**

Claim 28 is rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over Hedger in view of Gunn. Applicants respectfully traverse and submit that the rejection is improper for at least failing to disclose or suggest each feature recited in the claim.

Claim 28 recites, among other things, "receiving one or more control signals in said broadcast or cablecast transmission," as well as, detecting and passing the control signals to a computer. As discussed above, Hedger does not suggest or disclose at least these features. Gunn, is relied upon to disclose "outputted 'mass medium' television programming ... to provide the subscriber with an explanation of some portion of the financial analysis ..." Office Action, p. 52. As such, and because Gunn also does not contain any disclose or suggestion that would remedy the above noted deficiencies of Hedger, the proposed combination of Hedger and Gunn fails to suggest or disclose at least these features. In addition, claim 28 recites "selecting a mass medium program on the basis of a stored parameter." Neither Hedger nor Gunn disclose this feature. For at least these reasons applicants respectfully submit that the rejection of claim 28 is improper and request that it be withdrawn.

**3) Claim 38 Is Patentable Over Hedger In View Of Green**

Claim 38 is rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over Hedger in view of Green. Applicants respectfully traverse and submit that the rejection is improper for at least failing to suggest or disclose each feature recited in the claim.

Among other things claim 38 recites “storing said one or more instruct signals at said transmitter station, said one or more instruct signals at said receiver station operating to deliver a user specific financial analysis, said user specific financial analysis based on pre-stored subscriber data.” Hedger fails to suggest or disclose at least this step. Green is apparently relied upon to show the “transmission circuitry that is required … to … transmit pages of standard Teletext ....” Office Action, p. 52. Green fails to remedy the deficiencies of Hedger and also does not disclose the abovementioned steps. Therefore, the combination of Hedger and Green fails to suggest or disclose each feature recited in claim 38. Applicants respectfully request that the rejection be withdrawn.

**4) The Rejections Of Claims 2, 28 and 38 Are Improper For Failing To Provide Objective Evidence Of A Motivation To Combine The References**

In addition to failing to disclose or suggest each claimed feature, the asserted rejections of claims 2, 28 and 38 are improper for failing to provide objective evidence of a motivation to combine the references. In order to support a § 103 rejection based on a combination of references, the Examiner must provide a sufficient motivation for making the relevant combinations. *See* M.P.E.P. §§ 2142 and 2143.01; *see also In re Rouffet*, 149 F.3d 1350, 1355, 47 USPQ2d 1453, 1456 (Fed. Cir. 1998) (“When a rejection depends on a combination of prior art references, there must be some teaching, suggestion, or motivation to combine the references.”). It is well-settled that an Examiner can “satisfy [the burden under 35 U.S.C. § 103 to establish a *prima facie* case of obviousness] only by showing some *objective teaching* in the prior art or that knowledge generally

available to one of ordinary skill in the art would lead that individual to combine the relevant teachings of the references.” *In re Fine*, 837 F.2d 1071, 1074, 5 USPQ2d 1596, 1598 (Fed. Cir. 1988) (emphasis added); *see also In re Lee*, 277 F.3d 1338, 1344, 61 USPQ2d 1430, 1434 (Fed. Cir. 2002) (“deficiencies of the cited references cannot be remedied by the Board’s general conclusions about what is ‘basic knowledge’ or ‘common sense’”). As with rejections based on the modification of a single reference, “[b]road conclusory statements regarding the teaching of multiple references, standing alone, are not ‘evidence [of a motivation to combine]’” and thus do not support rejections based on combining references. *In re Dembiczak*, 175 F.3d at 999, 50 USPQ2d at 1617. Without objective evidence of a motivation to combine, the obviousness rejection is the “essence of hindsight” reconstruction, the very “syndrome” that the requirement for such evidence is designed to combat, and without which the obvious rejection is insufficient as a matter of law. *Id.* at 999, 50 USPQ2d at 1617-18.

There is no showing of any objective teaching to modify or combine the references in the Office action. The Office action provides no teaching at all in the rejection of claims 2 and 38 and for claim 28 merely states: “The examiner maintains that it would have been obvious to one of ordinary skill in the art to have used received mass medium TV programming to explain the financial analysis being performed by the advanced Teletext Decoder described by Hedger et al.” Office action, pp. 52. This broad, conclusory statement is not sufficient, under the controlling authorities set forth above, to justify combining the teachings of Hedger and Gunn. This conclusory statement does nothing more than argue that the result achieved by the alleged combination would have been obvious *if* the references could be combined. Yet, there is no showing that either of the applied references, or any other prior art, even remotely suggests such a modification. Applicants

respectfully request that the rejections of claims 2, 28 and 38 be withdrawn for at least this reason.

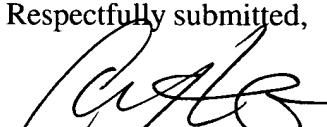
Applicants respectfully request that the rejections be withdrawn.

### III. CONCLUSION

In accordance with the foregoing, it is respectfully submitted that all outstanding objections and rejections have been overcome or rendered moot. Further, all pending claims are patentably distinguishable over the prior art of record, taken in any proper combination. Reconsideration and allowance of the instant application are respectfully requested.

If the Examiner has any remaining informalities to be addressed, it is believed that prosecution can be expedited by the Examiner contacting the undersigned attorney for a telephone interview to discuss resolution of such informalities.

Respectfully submitted,



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## **Appendix A**

### **Applicants' Marked-Up Claim Language**

2. **(Amended)** A method of processing signals at a receiver station based on a received information transmission, said method comprising the steps of:

storing a subscriber datum at a computer at said receiver station, said subscriber datum being at least one of the group consisting of:

(1) ~~[an investment]~~ a property datum;

(2) a financial datum;

(3) an income datum; and

~~[(4) a preference profile datum; and]~~

~~[(5)]~~4) an interest datum;

receiving at least one control signal in said received information transmission;

detecting the presence of said at least one control signal in said received information transmission;

passing said detected at least one control signal to said computer;

generating a financial analysis by processing said stored subscriber datum in response to ~~[at least one of]~~ said detected ~~[and passed]~~ control signal; and

outputting at least a portion of said financial analysis to a subscriber.

15. **(Three Times Amended)** A method for information delivery for use with an interactive mass medium program output apparatus comprising the steps of:

outputting a mass medium program that explains at least one ~~[receiver]~~ subscriber specific datum, said interactive mass medium program output apparatus having an input device to receive input from a subscriber~~[-]~~;

~~prompting said subscriber during said mass medium program for input, said interactive mass~~

medium program output apparatus having] and an output device for outputting said information; receiving a reply from said subscriber at said input device [in response to said step of prompting said subscriber], said interactive mass medium program output apparatus having a transmitter for communicating information to a remote station; communicating said reply to a remote station, said interactive mass medium program output apparatus and said remote station comprising a network having a plurality of transmitter stations; generating, in said network, a user specific financial analysis which is to be output at said interactive mass medium program output apparatus, said interactive mass medium program output apparatus having a receiver for receiving at least a portion of said user specific financial analysis from said remote station; delivering said user specific financial analysis.

28. (Twice Amended) A method of processing signals at a receiver station based on a broadcast or cablecast transmission, said method comprising the steps of :

- (a) storing a subscriber datum at a computer at said receiver station, said subscriber datum being at least one of [the group]:
  - (1) [an investment] a property datum;
  - (2) a financial datum;
  - (3) an income datum; and

[~~(4) a taste preference datum; and~~]

([5]4) an interest datum;
- (b) receiving one or more control signals in said broadcast or cablecast transmission;

- (c) detecting the presence of said one or more control signals in said broadcast or cablecast transmission;
- (d) passing said [detected] one or more control signals to said computer;
- (e) selecting a mass medium program on the basis of a stored [datum] parameter;
- (f) outputting said [selected] mass medium program to a subscriber at said receiver station; and
- (g) [explaining] presenting some portion of a user specific financial analysis in said [selected] mass medium program, said user specific financial analysis being based on [pre-stored] said subscriber [data] datum.

29. (Amended) The method of claim 28 further comprising the step of [generating] computing a value datum by processing said stored subscriber datum in response to one or more of said detected and passed control signals.

30. (Twice Amended) A method of communicating subscriber station information from said subscriber station to one or more remote stations, said method comprising the steps of:

- (1) storing subscriber data at said subscriber station;
- [(2) receiving a viewer's or participant's response to an output at said subscriber station;]
- ([3]2) processing an instruct signal and a control signal [which] wherein said control signal is effective to deliver a user specific financial analysis at said subscriber station, [in response to said viewer's or participant's response at said subscriber station,] said processing at said subscriber station is directed by instructions from said instruct signal, and said user specific financial analysis being based on [pre-stored] said subscriber data;

([4]3) generating one or more subscriber specific data from said step of processing said

instruct signal;

([5]4) transferring said one or more subscriber specific data from said [step of generating from said] subscriber station to said one or more remote stations; and

(5) receiving at least one of viewer modified or planner modified information for use in a subsequent iteration of processing an instruct signal.

38. (Amended) A method of communicating program material to a receiver station which includes a broadcast or cablecast program receiver, an output device, a control signal detector, a processor [operably] operatively connected to said output device, wherein said receiver station is adapted to detect and respond to one or more instruct signals, said method comprising the steps of:

[receiving] outputting a program to be transmitted at a transmitter station and delivering said program to a transmitter;

[receiving and] storing said one or more instruct signals at said transmitter station, said one or more instruct signals at said receiver station operating to deliver a user specific financial analysis, said user specific financial analysis based on pre-stored subscriber data;

[transferring said one or more instruct signals to a transmitter;] and  
transmitting from said transmitter station an information transmission comprising said program and said one or more instruct signals.

39. (Unchanged) The method of claim 38, wherein some identification data or said one or more instruct signals are embedded in a mass medium program signal including said program.

40. (Amended) The method of claim 38, wherein said step of transmitting directs said

[broadcast or cablecast] information transmission to a plurality of receiver stations at the same time and each of said plurality of receiver stations receives or responds to said one or more instruct signals concurrently.

41. (Unchanged) The method of claim 38, wherein said step of transmitting directs said broadcast or cablecast transmission to a plurality of receiver stations at different times and each of said plurality of receiver stations responds to said one or more instruct signals at a different time.

42. (Unchanged) The method of claim 38, further comprising the steps of receiving said program at a receiver in said transmitter station, communicating said program from said receiver in said transmitter station to a memory location, and storing said program at said memory location for a period of time prior to communicating said program to said transmitter.

## **Appendix B**

### **Chart Identifying Support for Each Claim in the Specification**

2. A method of processing signals at a receiver station based on a received information transmission, said method comprising the steps of:	Page 15, lines 7 - 9	In the present invention, particular signal processing apparatus (hereinafter called the "signal processor") detect signals and, in accordance with instructions in the signals ...
	Page 15, lines 17 - 19	The input transmissions may be received by means of antennas or from hard-wire connections.
storing a subscriber datum at a computer at	Page 534, lines 5 - 8	Particular farm information of the specific farm of each farmer is recorded in a file named MY_FARM.DAT on a disk at the A: disk drive of the microcomputer, 205, of each station.
	Page 551, lines 11 - 14	Automatically, under control of its received program instruction set, the microcomputer, 205, of its farmer's station records complete information of said farmer's crop planting plan at its A: disk in a file named PLANTING.DAT.
said receiver station,	Page 533, line 35 - page 534, line 5	Each farmer has a subscriber station that is identical to the station of Fig. 7 except that each station has two television recorder/players that are recorder/players, 217 and 217A; two television tuners, 215 and 215A; and a laser disk player, 232.
said subscriber datum being at least one of the group consisting of: (1) a property datum;	Page 534, lines 8 - 10	The recorded data includes, for example, data of the number and size of the individual parcels of property of the farmer's farm, ...
(2) a financial datum;	Page 534, lines 8 - 14	The recorded data includes, for example, data of ... the financial resources of said farmer.

(3) an income datum; and	Page 550, lines 30 - 32	The specific "optimal" crop planting plans so computed vary from station to station and include budget information of projected revenues, expenses, and profits.
	Page 535, line 10	... for example, taxes on farm incomes ...
(4) an interest datum;	Page 550, lines 9 - 29	... by applying information of said program instruction set. Said information that is applied includes ... interest rates ... that were incorporated at the local intermediate station of each farmer into the generally applicable information of its received local level intermediate generation set to generate its program instruction set (which is the program instruction set received at said farmer's station).
	Page 548, lines 18 - 20	So executing a specific contained program instruction set causes each microcomputer, 205, to generate ...
receiving at least one control signal in said received information transmission;	Page 537, lines 18 - 33	Causing each signal processor at every receiver station in said nations to commence operating under control of its specific operating system instructions causes apparatus of each signal processor to commence processing sequentially information of a plurality of specific frequencies in the fashion of example #5 ...
	Page 397, lines 17 - 20	Each subscriber station signal processor, 200, operates continuously; scans all incoming channels sequentially at its switch, 1, and mixer, 3, as described in example #5 above; ...

	Page 15, lines 17 – 19	The input transmissions may be received by means of antennas or from hard-wire connections.
	Page 40, lines 17 - 23	<p>The signals of the present invention are the modalities whereby stations that originate programming transmissions control the handling, generating, and displaying of programming at subscriber stations.</p> <p>(The term, "SPAM," is used, hereinafter, to refer to signal processing apparatus and methods of the present invention.)</p>
	Page 537, lines 24 - 34	One frequency that is processed at each receiver station is the specific operating system master control frequency of the information preprogrammed at the station specific EPROM, 20B, of said station. Said frequency is either said master transmission of said European master network station or a selected master channel transmission of a selected intermediate transmission station upon which information of said master transmission is retransmitted. Thus information of said master transmission is processed at each receiver station for program unit identification information of interest.
detecting the presence of said at least one control signal in said received information transmission;	Page 554, lines 27-35	causes the signal processor, 200, of each farmer's station to separate the apparatus of its station from the master channel transmission and second television of its local intermediate station; to cause its recorder/players, 217 and 217A, to commence playing their prerecorded commercial spot programming in the fashion of example #8, and to cause apparatus of its station to interconnect so as to commence generating and displaying

		(or otherwise outputting) combined medium programming of the programming transmitted ....
	Page 537, lines 21 - 23	... commence processing sequentially information of a plurality of specific frequencies in the fashion of example #5 to detect ...
	Page 248, lines 14 - 16	Example #5 focuses on ... signals detected at decoders, 30 and 40, of signal processor, 200.
passing said at least one control signal to said computer;	Page 554, lines 27-35	causes the signal processor, 200, of each farmer's station to separate the apparatus of its station from the master channel transmission and second television of its local intermediate station; to cause its recorder/players, 217 and 217A, to commence playing their prerecorded commercial spot programming in the fashion of example #8, and to cause apparatus of its station to interconnect so as to commence generating and displaying (or otherwise outputting) combined medium programming of the programming transmitted ....
	Page 538, line 31 - page 539, line 1	Automatically each ultimate receiver station ... commences transferring received information to its divider, 4, (thereby inputting said received information to its computer, 205, and its decoder, 203) ...
generating a financial analysis	Page 555, lines 7 - 11	... in a fashion well known in the art, to generate cost/benefit financial analysis of the incremental benefit of acquiring and using the displayed product or service (by comparison with the farmer's existing product or service of like kind); ...
by processing said stored subscriber datum	Page 555, lines 5 - 7	... to access the prerecorded "A:PLANTING.DAT" disk file information of a farmer's crop planting plan;

	Page 548, lines 18 - 22	So executing a specific contained program instruction set causes each microcomputer, 205, to generate a specific so-called "optimal" solution for its particular farmer's problem of deciding what mix of crops is most profitable to grow on his property, given his resources.
	Page 549, line 33 - page 550, line 18	... each farmer's microcomputer, 205, under control of the particular program instruction set generated and transmitted by its local intermediate station, computes its particular farmer's "optimal" crop planting plan by making reference to said farmer's specific data that includes, for example, the number and size of the individual parcels of property of the farmer's farm, ... and the financial resources of said farmer; by using said data as so-called "constraints"; and by applying information of said program instruction set. Said information that is applied includes ... interest rates ...
	Page 550, lines 29 - 35	The specific "optimal" crop planting plans so computed vary from station to station and include budget information of projected revenues, expenses, and profits. The plan of one particular farmer calls for planting forty acres of oats and sixty acres of wheat and projects profits of fifteen thousand units of local currency.
	Page 538, lines 17 - 30	Farmers and government planners all over Europe wish to receive and interact with the information of said program and have preprogrammed the apparatus of their stations to receive and combined to the programming transmission of said program. Thus so transmitting said program unit identification information of said "Farm Plans of Europe" program causes apparatus at the ultimate receiver stations of farmers in all of said nations to interconnect display (or other output

		apparatus) to the transmission of said program and to combine to the computer system of said transmission in the fashions described in example #10 and ... <b>EXAMPLE #7 ...</b>
in response to said control signal; and	Page 40, lines 17 - 20	The signals of the present invention are the modalities whereby stations that originate programming transmissions control the handling, generating, and displaying of programming at subscriber stations.
	For example, page 555, lines 2 - 3	... the combined medium information of said spot ...
	Page 13, lines 25 - 26	The present invention employs signals embedded in programming.
	For example, page 542, lines 22 - 31	Then said master station embeds and transmits in the full frame video of said master transmission a SPAM message that is addressed to URS microcomputers, 205, that contains information segment information of a particular first program instruction set. Transmitting said message causes the all ultimate receiver station microcomputers, 205, that are combined to the computer system of the transmission of said master station to commence executing the instructions of said set and to commence generating ...
	Page 538, lines 12 - 28	At 3:59 PM, GMT on Monday, February 15, 2027, said European master network station commences embedding in the information of said master transmission and transmitting program unit identification information of a particular combined medium television program, "Farm Plans of Europe." Farmers and government planners all over Europe wish to receive and interact with the information of said program and have preprogrammed the apparatus of

		their stations to receive and combined to the programming transmission of said program. Thus so transmitting said program unit identification information of said "Farm Plans of Europe" program causes apparatus at the ultimate receiver stations of farmers in all of said nations to interconnect display (or other output apparatus) to the transmission of said program and to combine to the computer system of said transmission ...
outputting at least a portion of said financial analysis to a subscriber.	Page 555, lines 11 - 13	... and to display (or otherwise output) information of said analysis (if said analysis results in a positive net present benefit).

15. A method for information delivery	Page 11, lines 5 - 10	The present invention consists of an integrated system of methods and apparatus for communicating programming. The term "programming" refers to everything that is transmitted electronically to entertain, instruct or inform, including television, radio, broadcast print, and computer programming as well as combined medium programming.
	Page 12, lines 21 - 23	The programming may be delivered by any means including over-the-air, hard-wire, and manual means.
for use with an interactive mass medium program output apparatus comprising the steps of:	Page 538, lines 17 - 28	Farmers and government planners all over Europe wish to receive and interact with the information of said program and have preprogrammed the apparatus of their stations to receive and combined to the programming transmission of said program. Thus so transmitting said program unit identification information of said "Farm Plans of Europe" program causes apparatus at the ultimate receiver stations of farmers in all of said nations to

		<p>interconnect display (or other output apparatus) to the transmission of said program and to combine to the computer system of said transmission in the fashions described in example #10 and in ...</p> <p><b>EXAMPLE #7 ...</b></p>
	Page 552, lines 15 - 16	... apparatus at each subscriber station of a farmer ...
	Page 533, line 35 - page 534, line 5	Each farmer has a subscriber station that is identical to the station of Fig. 7 except that each station has two television recorder/players that are recorder/players, 217 and 217A; two television tuners, 215 and 215A; and a laser disk player, 232.
outputting a mass medium	Page 552, lines 15 - 16	... causes apparatus at each subscriber station of a farmer to display or otherwise output ...
	Page 1, lines 27 - 28	But television, radio, and broadcast print are only mass media.
program that explains at least one subscriber specific datum,	Page 552, lines 26 - 30	<p>Receiving the further additional SPAM messages of its local intermediate station causes apparatus at each subscriber station of a farmer to display or otherwise output (or to cease displaying or otherwise outputting) further combined medium programming of said national and local segment of the "Farm Plans of Europe" program.</p> <p>Automatically, in the fashion of example #10, the display and output apparatus of each farmer's station commences displaying and outputting generally applicable television picture image, sound, and print information of a crop planting plan combined periodically with related locally generated specific crop planting plan information of its specific farmer. Automatically, crop and budget information of the aforementioned optimal crop planting plan of each farmer</p>

		is explained in the outputted the generally applicable programming and is displayed, emitted in sound, and printed at the station of each farmer.
	Page 550, line 30 - page 551, line 6	The specific "optimal" crop planting plans so computed vary from station to station and include budget information of projected revenues, expenses, and profits. The plan of one particular farmer calls for planting forty acres of oats and sixty acres of wheat and projects profits of fifteen thousand units of local currency. The plan of a particular second farmer calls for planting fifteen acres of broad beans and five acres of tomatoes and projects profits of thirty thousand units of local currency. The plan of a particular third farmer calls for planting ten acres of red tulips and two acres of blue tulips and projects profits of twenty thousand units of local currency.
said interactive mass medium program output apparatus having an input device to receive input from a subscriber	Page 555, lines 21 - 22. See Fig. 7.	... each farmer enters information at his local input, 225, ...
and an output device for outputting said information;	Page 552, lines 20 - 22	Automatically, in the fashion of example #10, the display and output apparatus of each farmer's station commences displaying and outputting ...
	Page 555, lines 11 - 12	... to display (or otherwise output) information of said analysis ...
receiving a reply from said subscriber at said input device	Page 555, lines 21 - 25	... each farmer enters information at his local input, 225, that modifies the information of his file, "PLANTING.DAT," to suit his own wishes and inclinations then executes particular information of said TELEPHON.EXE module that causes ...

	Page 534, lines 1-4	Each farmer has a subscriber station that is identical to the station of Fig. 7 except that each station has two television recorder/players that are recorder/players, 217 and 217A; two television tuners, 215 and 215A; and a laser disk player, 232.
said interactive mass medium program output apparatus having a transmitter for communicating information to a remote station;	Page 554, lines 13 - 21	... cause a particular module, TELEPHON.EXE, to be recorded at a particular disk drive of the microcomputer, 205, of each farmer's station (in the fashion of the file, "SHOPPING.EXE" in example #10) which, when executed, will permit the farmer to modify the information of his specific crop planting plan and associated budget and to transmit the specific information of his plan (as modified if modified) to a particular data collection computer at a remote station.
	Page 510, lines 26 - 30. See signal processor, 200, in Fig. 7 and see Fig. 2.	Receiving said call-this-number-and-respond-with- "A:SHOPPING.EXE" instructions and information of 1-(800) 247-8700 causes controller, 20, in the fashion described above, to cause auto dialer, 24, to dial the telephone number, 1-(800) 247-8700.
communicating said reply to a remote station,	Page 555, lines 21 - 29	... each farmer enters information at his local input, 225, that modifies the information of his file, "PLANTING.DAT," to suit his own wishes and inclinations then executes particular information of said TELEPHON.EXE module that causes the instructions of said module to cause his signal processor, 200, to transmit the information of his "PLANTING.DAT" file, via telephone network in the fashion of example #10, to a computer at a particular remote data collection station.
said interactive mass medium program output apparatus and	Page 555, lines 25 - 27	... cause his signal processor, 200, to transmit the information of his "PLANTING.DAT" file, via telephone

said remote station comprising a network having a plurality of transmitter stations;		network ...
	Page 537, lines 6 - 8	... said European master network station transmits particular SPAM message information, embedded in the information of said master transmission, ...
	Page 555, line 30 - page 556, line 11	<p>Over the course of a particular time such as two days, computers at remote data collection stations receive data automatically from each farmer of said nations which data indicates the specific quantity of each crop that each farmer expects to harvest during the 2027 growing season. Automatically, the received data is aggregated, in a fashion well known in the art, at the computer of said European master network origination and control station which allows planners at said station to modify and refine the variables of the national intermediate generation set of said station, especially the projected market prices at which farmers are projected to be able to sell each alternate crop.</p> <p>The aggregated data is also distributed automatically to computers at the national and local intermediate transmission stations, enabling national and local planners to vary and refine the policy variables of their stations' local-formula-and-item information.</p>
generating, in said network,	Page 556, lines 12 - 15	Then, at 3:59 PM, on Thursday, February 18, 2027, the cycle of generating and communicating information of farmers is repeated using the refined variables. Once again farmers receive ...
a user specific financial analysis which is to be output	Page 555, lines 2 - 13	... causes the combined medium information of said spot ... to access the prerecorded "A:PLANTING.DAT" disk

at said interactive mass medium program output apparatus,		file information of a farmer's crop planting plan; in a fashion well known in the art, to generate cost/benefit financial analysis of the incremental benefit of ... (or otherwise output) information of said analysis ...
said interactive mass medium program output apparatus having a receiver for receiving at least a portion of said user specific financial analysis from said remote station;	Page 552, lines 20 - 23	Automatically, in the fashion of example #10, the display and output apparatus of each farmer's station commences displaying and outputting generally applicable television picture image, sound, ...
	For example, page 491, lines 10 - 16	Automatically, microcomputer, 205, combines its specific video RAM binary image information of "\$1,071.32" with its received conventional video information. And automatically \$1,071.32 is displayed at the upper left hand corner of the picture screen of monitor, 202M, which is the corner to which the image of the person shown at said screen is pointing.
	Page 20, lines 16 - 19	TV monitor, 202M, has capacity for receiving composite video and audio transmissions and for presenting a conventional television video image and audio sound.
delivering said user specific financial analysis.	Page 555, lines 11 - 12	... and to display (or otherwise output) information of said analysis ...

28. A method of processing signals at a receiver station based on a broadcast or cablecast transmission, said method comprising	Page 15, lines 7 - 9	In the present invention, particular signal processing apparatus (hereinafter called the "signal processor") detect signals and, in accordance with ... the signals ...
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the steps of :		
	Page 15, lines 17 - 19	The input transmissions may be received by means of antennas or from hard-wire connections.
	Page 29, lines 4 - 7	Fig. 2 shows one embodiment of a signal processor. Said processor, 26, is configured for simultaneous use with a cablecast input that conveys both television and radio programming and a broadcast television input.
(a) storing a subscriber datum at a computer at	Page 534, lines 5 - 8	Particular farm information of the specific farm of each farmer is recorded in a file named MY_FARM.DAT on a disk at the A: disk drive of the microcomputer, 205, of each station.
	Page 551, lines 11 - 14	Automatically, under control of its received program instruction set, the microcomputer, 205, of its farmer's station records complete information of said farmer's crop planting plan at its A: disk in a file named PLANTING.DAT.
said receiver station,	Page 533, line 35 - page 534, line 5	Each farmer has a subscriber station that is identical to the station of Fig. 7 except that each station has two television recorder/players that are recorder/players, 217 and 217A; two television tuners, 215 and 215A; and a laser disk player, 232.
said subscriber datum being at least one of: (1) a property datum;	Page 534, lines 8 - 10	The recorded data includes, for example, data of the number and size of the individual parcels of property of the farmer's farm, ...
(2) a financial datum;	Page 534, lines 8 - 14	The recorded data includes, for example, data of ... the financial resources of said farmer.
(3) an income datum; and	Page 550, lines 30 - 32	The specific "optimal" crop planting plans so computed vary from station to

		station and include budget information of projected revenues, expenses, and profits.
	Page 535, line 10	... for example, taxes on farm incomes ...
(4) an interest datum;	Page 550, lines 9 - 29	... by applying information of said program instruction set. Said information that is applied includes ... interest rates ... that were incorporated at the local intermediate station of each farmer into the generally applicable information of its received local level intermediate generation set to generate its program instruction set (which is the program instruction set received at said farmer's station).
	Page 548, lines 18 - 20	So executing a specific contained program instruction set causes each microcomputer, 205, to generate ...
(b) receiving one or more control signals in said broadcast or cablecast transmission;	Page 537, lines 18 - 23	Causing each signal processor at every receiver station in said nations to commence operating under control of its specific operating system instructions causes apparatus of each signal processor to commence processing sequentially information of a plurality of specific frequencies in the fashion of example #5 ...
	Page 554, lines 22-24	Then a particular second-cueing message (#11) that is embedded at the end of the prerecorded national and local segment of the "Farm Plans of Europe" programming ...
	Page 397, lines 17 - 20	Each subscriber station signal processor, 200, operates continuously; scans all incoming channels sequentially at its switch, 1, and mixer, 3, as described in example #5 above; ...
	Page 29, lines 4 - 7. See also Fig.7.	Fig. 2 shows one embodiment of a signal processor. Said processor, 26, is

	including signal processor, 200.	configured for simultaneous use with a cablecast input that conveys both television and radio programming and a broadcast television input.
	Page 40, lines 17 - 23	<p>The signals of the present invention are the modalities whereby stations that originate programming transmissions control the handling, generating, and displaying of programming at subscriber stations.</p> <p>(The term, "SPAM," is used, hereinafter, to refer to signal processing apparatus and methods of the present invention.)</p>
	Page 537, lines 24 - 34	One frequency that is processed at each receiver station is the specific operating system master control frequency of the information preprogrammed at the station specific EPROM, 20B, of said station. Said frequency is either said master transmission of said European master network station or a selected master channel transmission of a selected intermediate transmission station upon which information of said master transmission is retransmitted. Thus information of said master transmission is processed at each receiver station for program unit identification information of interest.
	Page 553, lines 11 - 32	Transmitting said SPAM message information at its local intermediate station causes apparatus of each farmer's station to receive and input said information to the signal processor, 200, of said station, and receiving said information causes the signal processor, 200, of said station to cause its tuner, 215A, to commence receiving the transmission of the particular second television channel of its local intermediate station; to cause apparatus of said station

		<p>to interconnect to transfer the transmission received at said tuner, 215A, to a selected video recorder/player, 217 or 217A; and to cause said video recorder, 217 or 217A, to prepare to record selected programming.</p> <p>Then after an interval that is long enough for each of its subscriber stations to prepare a selected recorder/player, 217 or 217A, to record selected programming, each computer, 73, causes said recorder, 78, to commence playing. In so doing, each computer, 73, causes twenty-six program units of commercial spot programming to be transmitted, in series, to its subscriber stations. Each program unit is preceded by embedded program unit identification information of its own that is addressed to URS signal processors, 200.</p>
(c) detecting the presence of said one or more control signals in said broadcast or cablecast transmission;	Page 537, lines 21 - 23	... apparatus of each signal processor to commence processing sequentially information of a plurality of specific frequencies in the fashion of example #5 to detect ...
	Page 248, lines 14 - 16	Example #5 focuses on ... signals detected at decoders, 30 and 40, of signal processor, 200.
(d) passing said one or more control signals to said computer;	Page 538, line 31 - page 539, line 1	Automatically each ultimate receiver station that is equipped with a satellite earth station, 250, commences transferring received information of said master transmission, via its matrix switch, 258, to its divider, 4, (thereby inputting said received information to its computer, 205, and its decoder, 203) ...
(e) selecting a mass medium program	Page 538, line 31 - page 539, line 3	Automatically each ultimate receiver station ... commences transferring the television output information of its microcomputer, 205, to its television monitor, 202M, ...

	Page 1, lines 27 - 28	But television, radio, and broadcast print are only mass media.
	Page 538, lines 21 - 29	Thus so transmitting said program unit identification information of said "Farm Plans of Europe" program causes apparatus at the ultimate receiver stations of farmers in all of said nations to interconnect display (or other output apparatus) to the transmission of said program and to combine to the computer system of said transmission in the fashions described in example #10 and in ... <b>EXAMPLE #7 ...</b>
on the basis of a stored parameter;	Page 538, lines 17 - 21	Farmers and government planners all over Europe wish to receive and interact with the information of said program and have preprogrammed the apparatus of their stations to receive and combined to the programming transmission of said program.
(f) outputting said mass medium program to a subscriber at said receiver station; and	Page 552, lines 14-30	Receiving the further additional SPAM messages of its local intermediate station causes apparatus at each subscriber station of a farmer to display or otherwise output (or to cease displaying or otherwise outputting) further combined medium programming of said national and local segment of the "Farm Plans of Europe" program. Automatically, in the fashion of example #10, the display and output apparatus of each farmer's station commences displaying and outputting generally applicable television picture image, sound, and print information of a crop planting plan combined periodically with related locally generated specific crop planting plan information of its specific farmer. Automatically, crop and budget information of the aforementioned optimal crop planting plan of each farmer is explained in the outputted the generally applicable programming and is displayed.

		emitted in sound, and printed at the station of each farmer.
	Page 555, lines 2-13	Playing each commercial spot causes the combined medium information of said spot to display information of a particular commercial product such as a truck or a particular service such as a software package; to access the prerecorded "A:PLANTING.DAT" disk file information of a farmer's crop planting plan; in a fashion well known in the art, to generate cost/benefit financial analysis of the incremental benefit of acquiring and using the displayed product or service (by comparison with the farmer's existing product or service of like kind); and to display (or otherwise output) information of said analysis (if said analysis results in a positive net present benefit).
(g) presenting some portion of	Page 552, lines 26 - 30	Automatically, crop and budget information of the aforementioned optimal crop planting plan of each farmer is explained in the outputted the generally applicable programming and is displayed, emitted in sound, and printed at the station of each farmer.
a user specific financial analysis	Page 555, lines 2 - 12	... each commercial spot causes the combined medium information of said spot to display information of a particular commercial product such as a truck or a particular service such as a software package; ... to generate cost/benefit financial analysis of the incremental benefit of acquiring and using the displayed product or service (by comparison with the farmer's existing product or service of like kind); and to display (or otherwise output) information of said analysis ...
in said mass medium program,	Page 552, lines 15 - 19	... causes apparatus at each subscriber station of a farmer to display or otherwise output ... further combined medium programming of said national and local

		segment of the "Farm Plans of Europe" program.
said user specific financial analysis being based on said subscriber datum.	Page 555, lines 2 - 11	... causes the combined medium information of said spot ... to access the prerecorded "A:PLANTING.DAT" disk file information of a farmer's crop planting plan; in a fashion well known in the art, to generate cost/benefit financial analysis of the incremental benefit of acquiring and using the displayed product or service (by comparison with the farmer's existing product or service of like kind); ...

29. The method of claim 28 further comprising the step of computing a value datum by processing said subscriber datum in response to one or more of said detected and passed control signals.	Page 551, lines 15 - 30	Then automatically, under control of its particular program instruction set, each farmer's microcomputer, 205, computes and retains information of a particular schedule of spot commercials. Information of twenty-six specific potential commercials of any given schedule are included in the information of its set, and the specific commercials include, for example, commercials for a particular new farm truck, a particular new farm tractor, a particular new farm disk harrow, software of a particular new "PROPRIET.MOD" module for analyzing crop planting plans and generating recommended planting plans in a "new improved fashion," etc. Under control of the instructions of its particular set, by analyzing the budget information of its farmers crop planting plan, each microcomputer, 205, automatically identifies four commercial spots that are of a particular possible highest potential value to its farmer.
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30. A method of communicating subscriber station information from said subscriber station to one or more remote stations, said method comprising the steps of:	Page 15, line 7 - page 16, line 4	In the present invention, particular signal processing apparatus (hereinafter called the "signal processor") detect signals and, ... have connections to one or more remote sites for further transmission of the recorded information. The apparatus has means for external communication and an automatic dialer and can contact remote sites and transfer stored information as required ...
	Page 28, lines 6 - 10	In the present invention, the signal processor--26 in Fig. 2; 26 in the signal processor system of Fig. 2D; in the signal processor system, 71, of Fig. 6; 200 in Fig. 7; and elsewhere--is focal means for the controlling and monitoring subscriber station operations.
(1) storing subscriber data at said subscriber station;	Page 534, lines 5 - 8	Particular farm information of the specific farm of each farmer is recorded in a file named MY_FARM.DAT on a disk at the A: disk drive of the microcomputer, 205, of each station.
	Page 534, lines 1 - 5	Each farmer has a subscriber station that is identical to the station of Fig. 7 except that each station has two television recorder/players that are recorder/players, 217 and 217A; two television tuners, 215 and 215A; and a laser disk player, 232.
(2) processing an instruct signal	Page 547, lines 26-31	(In example #11, the local stations are preprogrammed in such a fashion that receiving its specific transmit-program-instruction-set message (#11) causes each station to transmit the program instruction set generated by the local intermediate generation set of its national intermediate station ...
	Page 548, lines 1-6	Receiving the particular first SPAM message of its local intermediate station causes apparatus of the subscriber station of each farmer to execute the contained

		program instruction set of said message at the microcomputer, 205, of said station and to commence generating the specific combined medium output information of its subscriber station.
and a control signal	Page 554, lines 22 – 32	Then a particular second-cueing message (#11) that is embedded at the end of the prerecorded national and local segment of the "Farm Plans of Europe" programming at the recorder, 76, of each local intermediate station and that is addressed to URS signal processors, 200, is transmitted and causes the signal processor, 200, of each farmer's station to separate the apparatus of its station from the master channel transmission and second television of its local intermediate station; to cause its recorder/players, 217 and 217A, to commence playing their prerecorded commercial spot programming in the fashion of example #8, ...
wherein said control signal is effective to deliver a user specific financial analysis at said subscriber station,	Page 555, lines 2 – 13	Playing each commercial spot causes the combined medium information of said spot to ... to generate cost/benefit financial analysis of the incremental benefit of acquiring and using the displayed product or service (by comparison with the farmer's existing product or service of like kind); and to display (or otherwise output) information of said analysis (if said analysis results in a positive net present benefit).
said processing at said subscriber station is directed by instructions from said instruct signal, and	Page 547, lines 26-31	(In example #11, the local stations are preprogrammed in such a fashion that receiving its specific transmit-program-instruction-set message (#11) causes each station to transmit the program instruction set generated by the local intermediate generation set of its national intermediate station ...

	Page 548, lines 1-5	Receiving the particular first SPAM message of its local intermediate station causes apparatus of the subscriber station of each farmer to execute the contained program instruction set of said message at the microcomputer, 205, of said station ...
said user specific financial analysis being based on said subscriber data;	Page 548, lines 23-27	First, each microcomputer, 205, accesses the specific information of its particular farmer. Automatically, under control of its specific received program instruction set, each microcomputer, 205, accesses the file, MY_FARM.DAT, that is prerecorded on the disk loaded at its A: disk drive ...
	Page 549, line 32 - page 550, line 1	Then using linear programming techniques that are well known in the art, each farmer's microcomputer, 205, under control of the particular program instruction set generated and transmitted by its local intermediate station, computes its particular farmer's "optimal" crop planting plan...
	Page 551, lines 11-14	Automatically, under control of its received program instruction set, the microcomputer, 205, of its farmer's station records complete information of said farmer's crop planting plan at its A: disk in a file named PLANTING.DAT.
	Page 555, lines 2 - 7	Playing each commercial spot causes the combined medium information of said spot to ... access the prerecorded "A:PLANTING.DAT" disk file information of a farmer's crop planting plan; in a fashion well known in the art, to generate cost /benefit financial analysis ...
(3) generating one	Page 548, lines 18 - 22	So executing a specific contained program instruction set causes each microcomputer, 205, to generate a specific so-called "optimal" solution for its

		particular farmer's problem of deciding what mix of crops is most profitable to grow on his property, given his resources.
or more subscriber specific data	Page 550, lines 30 - 35	The specific "optimal" crop planting plans so computed vary from station to station and include budget information of projected revenues, expenses, and profits. The plan of one particular farmer calls for planting forty acres of oats and sixty acres of wheat and projects profits of fifteen thousand units of local currency.
	Page 551, lines 11 - 14	Automatically, under control of its received program instruction set, the microcomputer, 205, of its farmer's station records complete information of said farmer's crop planting plan at its A: disk in a file named PLANTING.DAT.
from said step of processing said instruct signal;	Page 547, line 35 - page 548, line 5	Receiving the particular first SPAM message of its local intermediate station causes apparatus of the subscriber station of each farmer to execute the contained program instruction set of said message at the microcomputer, 205, of said station and to commence generating ...
	Page 548, lines 18 - 22	So executing a specific contained program instruction set causes each microcomputer, 205, to generate a specific so-called "optimal" solution for its particular farmer's problem of deciding what mix of crops is most profitable to grow on his property, given his resources.
(4) transferring said one	Page 555, lines 24 - 29	... then executes particular information of said TELEPHON.EXE module that causes the instructions of said module to cause his signal processor, 200, to transmit the information of his "PLANTING.DAT" file, via telephone network in the fashion of example #10, to a computer at a particular remote data collection station.

	Page 554, lines 19 - 20	... transmit the specific information of his plan (as modified ...
or more subscriber specific data	Page 551, lines 11 - 14	Automatically, under control of its received program instruction set, the microcomputer, 205, of its farmer's station records complete information of said farmer's crop planting plan at its A: disk in a file named PLANTING.DAT.
from said subscriber station to said one	Page 555, lines 25 - 29	... cause his signal processor, 200, to transmit the information of his "PLANTING.DAT" file, via telephone network in the fashion of example #10, to a computer at a particular remote data collection station.
or more remote stations; and	Page 555, line 30 - page 556, line 9	Over the course of a particular time such as two days, computers at remote data collection stations receive data automatically from each farmer of said nations which data indicates the specific quantity of each crop that each farmer expects to harvest during the 2027 growing season. Automatically, the received data is aggregated, in a fashion well known in the art, at the computer of said European master network origination and control station ... The aggregated data is also distributed automatically to computers at the national and local intermediate transmission stations, ...
(5) receiving at least one of viewer modified	Page 555, lines 21 - 23	... each farmer enters information at his local input, 225, that modifies the information of his file, "PLANTING.DAT," to suit his own wishes and inclinations ...
	Page 554, lines 12 - 21	In due course, the instructions of the program instruction set received at each farmer's station cause a particular module, TELEPHON.EXE, to be recorded at a particular disk drive of the

		microcomputer, 205, of each farmer's station ... which, when executed, will permit the farmer to modify the information of his specific crop planting plan and associated budget and to transmit the specific information of his plan (as modified if modified) to a particular data collection computer at a remote station.
	Page 555, lines 19 - 23	Under control of the instructions of the TELEPHON.EXE module of his station controlling the operation of his signal processor, 200, each farmer enters information at his local input, 225, that modifies the information of his file, "PLANTING.DAT," to suit his own wishes and inclinations ...
or planner modified	Page 555, line 35 - page 556, line 6	Automatically, the received data is aggregated, in a fashion well known in the art, at the computer of said European master network origination and control station which allows planners at said station to modify and refine the variables of the national intermediate generation set of said station, especially the projected market prices at which farmers are projected to be able to sell each alternate crop.
	Page 556, lines 7-11	The aggregated data is also distributed automatically to computers at the national and local intermediate transmission stations, enabling national and local planners to vary and refine the policy variables of their stations' local-formula-and-item information.
information for use in a subsequent iteration of processing an instruct signal.	Page 556, lines 12-21	... the cycle of generating and communicating information of farmers is repeated using the refined variables. Once again farmers receive optimal planting plans, given the new refined variables, and respond with their own plans, causing data to be aggregated at the computer of said European master network origination and control station. In an iterative fashion well known in

		the art, this cycle is repeated several times until a satisfactory European master agricultural plan is achieved.
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38. A method of communicating	Page 11, lines 5 - 10	The present invention consists of an integrated system of methods and apparatus for communicating programming. The term "programming" refers to everything that is transmitted electronically to entertain, instruct or inform, including television, radio, broadcast print, and computer programming as well as combined medium programming.
program material	Page 41, lines 20 - 21	The information of SPAM signals includes data, computer program instructions, and commands.
	Also, for example, page 41, lines 28 - 29	... program units of conventional television, radio, and other media.
to a receiver station	Page 533, line 35 - page 534, line 2	Each farmer has a subscriber station that is identical to the station of Fig. 7 ...
which includes a broadcast or cablecast	Page 29, lines 4 - 7. See Fig. 7 (including signal processor 200)	Fig. 2 shows one embodiment of a signal processor. Said processor, 26, is configured for simultaneous use with a cablecast input that conveys both television and radio programming and a broadcast television input.
program receiver,	Page 538, lines 19 - 21	... have preprogrammed the apparatus of their stations to receive ... the programming transmission of said program.
an output device,	Page 552, lines 20 - 22. See Fig. 7.	Automatically, in the fashion of example #10, the display and output apparatus of each farmer's station commences displaying and outputting ...
	Page 491, lines 13 - 16	And automatically \$1,071.32 is displayed at the upper left hand corner of the picture

		screen of monitor, 202M, which is the corner to which the image of the person shown at said screen is pointing.
a control signal	Page 40, lines 17 - 23	<p>The signals of the present invention are the modalities whereby stations that originate programming transmissions control the handling, generating, and displaying of programming at subscriber stations.</p> <p>(The term, "SPAM," is used, hereinafter, to refer to signal processing apparatus and methods of the present invention.)</p>
detector,	Page 537, lines 21 - 23	... commence processing sequentially information of a plurality of specific frequencies in the fashion of example #5 to detect ...
a processor operatively connected to said output device,	Page 552, lines 20 – 22. See Fig. 7.	Automatically, in the fashion of example #10, the display and output apparatus of each farmer's station commences displaying and outputting ...
	Page 491, lines 10 – 16. The receiver station portion of example #10 extends from page 469 to page 516.	Automatically, microcomputer, 205, combines its specific video RAM binary image information of "\$1,071.32" with its received conventional video information. And automatically \$1,071.32 is displayed at the upper left hand corner of the picture screen of monitor, 202M, which is the corner to which the image of the person shown at said screen is pointing.
wherein said receiver station is adapted to detect and respond to	Page 15, lines 7 – 9. See signal processor 200 in Fig. 7 as well as Figs. 2 and 2A-2C.	In the present invention, particular signal processing apparatus (hereinafter called the "signal processor") detect signals and, in accordance with instructions in the signals ...
one	Page 59, lines 29 - 31	A SPAM message is the modality whereby the original transmission station that originates said message controls specific addressed apparatus at subscriber

		stations.
or more instruct signals, said method comprising the steps of:	Page 29, lines 4 - 7	Fig. 2 shows one embodiment of a signal processor. Said processor, 26, is configured for ... use with a cablecast input that conveys both television and radio programming ...
	Page 40, lines 17 - 20	The signals of the present invention are the modalities whereby stations that originate programming transmissions control the handling, generating, and displaying of programming at subscriber stations.
outputting	Page 553, lines 1 - 8	... causes the computer, 73, of each local intermediate station to ... cause the video recorder/player, 78, of its station to commence playing and to cause ... output of said recorder/player, 78, ...
a program to be transmitted	Page 553, lines 27 - 29	In so doing, each computer, 73, causes twenty-six program units of commercial spot programming to be transmitted, in series, to its subscriber stations.
at a transmitter station	Page 535, lines 18 - 22	Each local government has a local intermediate transmission station that is identical to the intermediate station of Fig. 6 and that transmits multiplexed output information of several separate television channels via a cable field distribution system.
	Page 324, lines 18 - 21	Fig. 6 illustrates Signal Processing Apparatus and Methods at an intermediate transmission station that is a cable television system "head end" and that cablecasts several channels of television programming.
and delivering said program to a transmitter;	Page 553, lines 7 - 10	... commence playing and to cause apparatus of its station to transmit the output of said recorder/player, 78, to the field distribution system of said station on the television transmission of a particular

		second television channel.
	Page 324, line 34 - page 325, line 4	... a conventional matrix switch, 75, well known in the art, that outputs to ... apparatus that outputs said transmissions over various channels to the cable system's field distribution system, 93, which apparatus includes cable channel modulators, 83, 87, and 91, and channel combining and multiplexing system, 92.
storing said one	Page 554, lines 22 - 26	Then a particular second-cueing message (#11) that is embedded at the end of the prerecorded national and local segment of the "Farm Plans of Europe" programming at the recorder, 76, of each local intermediate station and that is addressed to URS signal processors, 200, ...
or more instruct signals	Page 553, lines 26 - 28	... causes said recorder, 78, to commence playing. ... twenty-six program units of commercial spot programming ...
	Page 552, lines 9 - 10	... SPAM messages that are embedded in its prerecorded programming ...
	For example, page 553, lines 29 - 32	Each program unit is preceded by embedded program unit identification information of its own that is addressed to URS signal processors, 200.
at said transmitter station,	Page 553, line 26. See Figs. 6A and 6B.	... computer, 73, causes said recorder, 78, to commence ...
	Page 554, lines 24 - 25. See Figs. 6A and 6B.	... at the recorder, 76, of each local intermediate station ...
said one or more instruct signals at said receiver station operating to	Page 554, line 22 - page 555, line 2	Then a particular second-cueing message (#11) ... causes the signal processor, 200, of each farmer's station to separate the apparatus of its station from the master channel transmission and second television of its local intermediate

		<p>station; to cause its recorder/players, 217 and 217A, to commence playing ... and to cause apparatus of its station to interconnect so as to commence generating and displaying (or otherwise outputting) combined medium programming of the programming transmitted by its selected recorder/player, 217 or 217A.</p> <p>Playing each commercial spot causes ...</p>
	For example, page 547, line 33 - page 548, line 6	<p>Subsequently, additional SPAM messages that are embedded in said prerecorded programming and that are addressed to URS microcomputers, 205, are transmitted by said recorder, 76.</p> <p>Receiving the particular first SPAM message of its local intermediate station causes apparatus of the subscriber station of each farmer to execute the contained program instruction set of said message at the microcomputer, 205, of said station and to commence generating the specific combined medium output information of its subscriber station.</p>
deliver a user specific financial analysis, said user specific financial analysis based on	Page 555, lines 2 - 13	<p>Playing each commercial spot causes the combined medium information of said spot to display information of a particular commercial product such as a truck or a particular service such as a software package; to access the prerecorded "A:PLANTING.DAT" disk file information of a farmer's crop planting plan; in a fashion well known in the art, to generate cost/benefit financial analysis of the incremental benefit of acquiring and using the displayed product or service (by comparison with the farmer's existing product or service of like kind); and to display (or otherwise output) information of said analysis (if said analysis results in a positive net present benefit).</p>

pre-stored subscriber data;	Page 551, lines 11 - 14	Automatically, under control of its received program instruction set, the microcomputer, 205, of its farmer's station records complete information of said farmer's crop planting plan at its A: disk in a file named PLANTING.DAT.
transmitting from said transmitter station an information transmission comprising said program and said one or more instruct signals.	Page 553, lines 27 - 32	... each computer, 73, causes twenty-six program units of commercial spot programming to be transmitted, in series, to its subscriber stations. Each program unit is preceded by embedded program unit identification information of its own that is addressed to URS signal processors, 200.
	Page 554, lines 22 - 26	Then a particular second-cueing message (#11) that is embedded at the end of the prerecorded national and local segment of the "Farm Plans of Europe" programming at the recorder, 76, of each local intermediate station and that is addressed to URS signal processors, 200, is transmitted ...

39. The method of claim 38, wherein some identification data	Page 553, lines 27 - 32	In so doing, each computer, 73, causes twenty-six program units of commercial spot programming to be transmitted, in series, to its subscriber stations. Each program unit is preceded by embedded program unit identification information of its own that is addressed to URS signal processors, 200.
or said one	Page 554, lines 22 - 26	Then a particular second-cueing message (#11) that is embedded at the end of the prerecorded national and local segment of the "Farm Plans of Europe" programming at the recorder, 76, of each local intermediate station and that is addressed to URS signal processors, 200, is transmitted ...

or more instruct signals are embedded in	Page 552, line 35 - page 553, line 5	... causes the computer, 73, of each local intermediate station to embed SPAM message information that is addressed to URS signal processors, 200, in the normal location of its master channel transmission ...
a mass medium program signal including said program.	Page 535, lines 18 - 22	Each local government has a local intermediate transmission station that is identical to the intermediate station of Fig. 6 and that transmits multiplexed output information of several separate television channels via a cable field distribution system.

40. The method of claim 38, wherein said step of transmitting directs said information transmission to a plurality of receiver stations at the same time and each of said plurality of receiver stations receives or responds to said one or more instruct signals concurrently.	Page 554, lines 22 - 32	Then a particular second-cueing message (#11) that is embedded at the end of the prerecorded national and local segment of the "Farm Plans of Europe" programming at the recorder, 76, of each local intermediate station and that is addressed to URS signal processors, 200, is transmitted and causes the signal processor, 200, of each farmer's station to separate the apparatus of its station from the master channel transmission and second television of its local intermediate station; to cause its recorder/players, 217 and 217A, to commence playing their prerecorded commercial spot programming in the fashion of example #8, ...
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41. The method of claim 38, wherein said step of transmitting directs said [broadcast or cablecast] <b>information</b> transmission to a plurality of receiver	Page 546, lines 6 - 17	Receiving said message causes each local intermediate station to commence playing prerecorded programming loaded at its recorder, 76, and transmitting said programming to its field distribution system, 93, on the television channel transmission that is the master channel transmission of said intermediate station.
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stations at different times and each of said plurality of receiver stations responds to said one or more instruct signals at a different time.		In so doing, each local intermediate station commences transmitting television information of a national and local segment of the "Farm Plans of Europe" program. (Each national intermediate station can have transmitted said prerecorded programming to its local intermediate stations and caused said stations to organize said programming in the fashion of examples #8 and #9 ...
	Page 342, line 26 - page 343, line 4. Examples #8 and #9 extend from page 340 to page 374.	For example, in the case of the computer, 73, of the station of Fig. 6, said remote distribution station informs said computer, 73, to select and record program units Q, D, Y, and W; to transmit program unit Q at 2:30:30 PM eastern standard time, on January 29, 1988 on the cable channel transmitting the Cable News Network; to transmit program unit Y at 2:45:00 PM eastern standard time, on January 29, 1988 on the cable channel transmitting the Cable News Network; to transmit program unit W at 2:45:00 PM eastern standard time, on January 29, 1988 on the cable channel transmitting the USA Cable Network; to transmit program unit D at 9:15:30 PM eastern standard time, on January 30, 1988 on the cable channel transmitting the Cable News Network.

42. The method of claim 38, further comprising the steps of	Page 546, lines 6 - 17	Receiving said message causes each local intermediate station to commence playing prerecorded programming loaded at its recorder, 76, and transmitting said programming to its field distribution system, 93, on the television channel transmission that is the master channel transmission of said intermediate station. In so doing, each local intermediate station commences transmitting television information of a national and local segment of the "Farm Plans of Europe"
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		program. (Each national intermediate station can have transmitted said prerecorded programming to its local intermediate stations and caused said stations to organize said programming in the fashion of examples #8 and #9 ...
receiving said program at a receiver in said transmitter station,	Page 343, lines 26 - 32	Galaxy 1 satellite. Automatically, at the station of Fig. 6, the computer, 73, instructs a selected earth station, 50, to move its antenna so as to receive transmissions from a satellite at the celestial coordinates of the Galaxy 1 satellite and instructs amplifier, 51, and receiver, 53, to amplify and tune as required to receive the transmission of the frequency of the transponder 23 of said satellite.
	Page 344, lines 24 – 29	... said remote distribution station commences transmitting programming by satellite up-link means, well known in the art. Said programming consists of a sequence of the program units of 26 spot commercials, each of thirty seconds duration. In succession, said station transmits units A, B, C, ... P, Q, R, ...
communicating said program from said receiver in said transmitter station to a memory location,	Page 344, lines 4 - 8	Automatically, at the station of Fig. 6, the computer, 73, causes matrix switch, 75, to configure its switches so as to transfer transmissions from receiver, 53, to a selected primary recorder, 76; ...
and storing said program at said memory location for a period of time prior to	Page 346, line 34 - page 347, line 5	Subsequently, receiving the select-Q-message (#8) causes said computer, 73, to determine that the "program unit identification code" information of unit Q matches preprogrammed schedule information which causes said computer, 73, to cause recorder, 76, to commence recording, thereby causing said recorder, 76, to record the programming of program unit Q which follows said select-Q-message (#8).

communicating said program to said transmitter.	Page 367, lines 25 – 27. See Figs. 6A and 6B.	Causing recorder, 76, to play causes recorder, 76, to transmit programming of Q, via matrix switch, 75, and modulator, 83, to field distribution system, 93, ...
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